

Psychological Abstracts

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GENERAL (incl. Statistics)

2343. Bartlett, F. C. **Psychology after the war.** *Agenda*, 1944, 3, No. 1, 1-11.—Psychology in relation to the national effort is discussed under the following headings: (a) selecting the man for his task (intelligence, vocational, and temperament testing), (b) fitting the job to the man, (c) the study of incentives and interests, and (d) the question of organization. There is a plea for close co-operation with the physical, biological, and social scientists.—*P. R. Farnsworth* (Stanford).

2344. Finney, D. J. **The application of probit analysis to the results of mental tests.** *Psychometrika*, 1944, 9, 31-40.—The application of the Müller-Urbani constant process to item selection, as considered in a recent paper in this journal (see 16: 2135) is shown to be closely analogous to a method now in general use for the analysis of insecticidal and other toxicological tests. This method of *probit analysis* gives the maximum likelihood estimates of the unknown parameters and, with the aid of published tables, the necessary computations can be rapidly performed. The present paper contains an outline of the method and an illustration of the most convenient form of computations for use in analyses of psychometric data.—(Courtesy *Psychometrika*).

2345. Grant, D. A. **On "The analysis of variance in psychological research."** *Psychol. Bull.*, 1944, 41, 158-166.—The aim of this article is "to clarify certain points in the original article [by H. E. Garrett and J. Zubin, see 17: 2548] and to correct major errors." The review follows the form of the original article, covering the topics: (1) meaning of the analysis of variance, (2) simple classification of variates, (3) multiple classification of variates, (4) the Latin square and the Greco-Latin square, (5) factorial methods, (6) the applications of analysis of variance to certain special problems, and (7) analysis of covariance.—*S. Ross* (U. S. Naval Reserve).

2346. Guttman, L. **General theory and methods for matrix factoring.** *Psychometrika*, 1944, 9, 1-16.—Methods are developed for factoring an arbitrary rectangular matrix S of rank r into the form FP , where F has r columns and P has r rows. For the statistical problem of factor analysis, S may be the score matrix of a population of individuals on a battery of tests. Then F is a matrix of factor loadings, P is a matrix of factor scores, and r is the number of factor variates. (As in current procedures, there remains a subsequent problem of rotation of axes and interpretation of factors, which is not discussed here.) Methods are also developed for factoring an arbitrary Gramian matrix G of rank r into the form FF' , where F has r columns and F' denotes F transposed. For the statistical problem of factor analysis, G may be the matrix of intercorrelations, R , of a battery of tests, with unity, communalities or other parameters

in the principal diagonal. R is proportional to SS' , and it is shown that S can be factored by factoring R . This may usually be the most economical procedure in practice; it should not be overlooked, however, that S can be factored directly. The general methods build up an F (and P) in as many stages as desired; as many factors as may be deemed computationally practical can be extracted at a time. Perhaps it will usually be found to be convenient to extract not more than three factors at a time. Current procedures, like the centroid and principal axes, are special cases of a general method presented here for extracting one factor at a time.—(Courtesy *Psychometrika*).

2347. Hall, E. W. **Psychology and philosophy after the war.** *J. higher Educ.*, 1944, 15, 79-82.—The emancipation of experimental psychology from systematic philosophy took place during the past half century. Developments now occurring at the State University of Iowa, which show the aid given to psychology by critical logical and epistemological analysis, may point to a new rapprochement between psychology and philosophy. This is not a reversion to the relation existing between the two fields before 1890. Rather it is a recognition of the mutual value of each to the other. On the one hand the philosopher can aid the psychologist in the region of logic and the philosophy of science; on the other hand philosophy can be given content only by maintaining the closest contact with certain other disciplines, of which experimental psychology is one.—*M. Murphy* (Pennsylvania).

2348. Hall, E. W. **Psychology and philosophy when peace comes.** *Univ. Ia Stud. Aims Progr. Res.*, 1943, No. 74, 35-45.—Pioneering in the relation of psychology to philosophy in former days caused the emancipation of experimental psychology from philosophy. The new pioneering is in exploring the aid which critical logical and philosophical analysis can offer theoretical psychology. The function of philosophy is "analysis and clarification of scientific method: not legislation to science, but elucidation of what is largely implicit in scientific activity, generalization of methodological assumptions embedded in specific investigations, the pointing out of ambiguities and confusions." For this function it is imperative that the philosopher have not merely a secondhand acquaintance with science; it is imperative that he co-operate in some actual scientific endeavor with some practicing scientist. Critical analysis of the more general aspects of other branches of knowledge "is about the most important single thing that could be done to improve the character of learning in America when peace comes."—*B. Wellman* (Iowa).

2349. Lord, F. M. **Alignment chart for calculating the fourfold point correlation coefficient.** *Psychometrika*, 1944, 9, 41-42.—The alignment chart may be used to calculate the fourfold point correlation coefficient for any fourfold table. If the categories

into which each variable of a fourfold table is classified are termed "successful" and "unsuccessful," then the values needed to enter the chart are: *A*, the per cent of cases successful with respect to the first variable; *C*, the per cent of cases successful with respect to the second variable; and *Q*, the per cent of those cases successful with respect to the second variable that were also successful with respect to the first variable.—(Courtesy *Psychometrika*).

2350. Lorr, M. Interrelationships of number-correct and limen scores for an amount-limit test. *Psychometrika*, 1944, 9, 17-30.—For an amount-limit test homogeneous as to content and varied as to difficulty it is established that an individual's number-right score and his limen score as estimated by the constant process are mathematically related. The experimental and the theoretic relationship between normal deviate and limen score are shown to be in good agreement. It is also found that the two methods of evaluating test performance yield equally reliable sets of scores for the procedures used. Accordingly where the assumptions basic to the relationship obtain, the more conveniently computed raw score may be considered to be as valid and reliable an index of individual test performance as the limen score. The concept of the dispersion parameter of the individual as a measure of change or error in test score found no experimental verification. Estimates of individual variability are unrelated to differences in score on equivalent forms.—(Courtesy *Psychometrika*).

2351. M[oulton], F. R. James McKeen Cattell. *Sci. Mon.*, N. Y., 1944, 58, 249-252.—Obituary and portrait.—E. Gorden (Brooklyn).

2352. Neiswanger, W. A. *Elementary statistical methods*. New York: Macmillan, 1943. Pp. xviii + 740. \$4.00.—This textbook has been written for students of business and economics, and the methods described employ data from these fields as examples. The field is introduced by discussions of the importance of statistics in the modern economy, of cautions in use and interpretation of statistics, and of methods used in initiating and conducting a statistical investigation. The chapter topics are of a classical type, but the order of presentation differs somewhat from the usual, being: sampling, tabulation, graphs and charts, frequency distribution, averages, dispersion, skewness, reliability, index numbers, time series, seasonal variation, statistical concept of normal and cyclic variations, functional relationships, and correlation. An appendix contains descriptions of basic mathematics, symbols, formulas, proofs, and statistical tables.—T. G. Andrews (Barnard).

2353. Terman, L. M. Barbara Stoddard Burks, 1902-1943. *Psychol. Rev.*, 1944, 51, 136-139.—A brief biographical sketch is given, including ancestral background, a description of professional training and achievements, and an evaluation of scientific contributions.—M. A. Tinker (Minnesota).

2354. Thompson, A. J. Table of the coefficients of Everett's central-difference interpolation formula. (2nd ed.) Cambridge, Eng.: Cambridge University Press, 1943. Pp. viii + 32. 5s.

2355. Tucker, L. R. A semi-analytical method of factorial rotation to simple structure. *Psychometrika*, 1944, 9, 43-68.—A factorial rotational method is

presented which represents a compromise between the use of subjective judgment characteristic of graphical methods and the routine application of analytical methods. At present the analytical methods seem to be inadequate for the discovery of a simple structure, while graphical methods require more subjective judgment. The method herein presented locates the axes for subgroups of tests by an analytical method. The judgments used in the selection of subgroups are based on graphic data concerning interrelation of the factors.—(Courtesy *Psychometrika*).

2356. Tunnell, E. Publications of Barbara S. Burks. *Psychol. Rev.*, 1944, 51, 139-141.—M. A. Tinker (Minnesota).

[See also abstract 2488.]

NERVOUS SYSTEM

2357. Adrian, E. D. Brain mechanism. *Science*, 1944, 99, 353-357.—The author pays tribute to the work of Sherrington, Pavlov, and other investigators of nervous activity. Most of the article is devoted to a discussion of the Berger rhythm, its detection, origin, and the role it plays in giving information about the activity of the cortex.—F. A. Mote (Connecticut).

2358. Denny-Brown, D., & Brenner, C. Paralysis of nerve induced by direct pressure and by tourniquet. *Arch. Neurol. Psychiat.*, Chicago, 1944, 51, 1-26.—Among the observations reported are the following: "With compression of short segments of peripheral nerve, great variation in rate and extent of impairment of conduction is caused by uneven pressure gradients in the nerve bundles, with consequent variation in the degree of ischemia due to escape of some small vessels. Under such conditions the onset of paralysis is in general more rapid the greater the applied pressure. This relation is an expression of corresponding relative degrees of ischemia, and not a direct consequence of pressure on nerve fibers . . . paralysis is associated with early vacuolation and swelling of axis cylinders. After 48 hours there is disappearance of myelin, beginning at the nodes of Ranvier. . . . There is some evidence that return of conductivity is associated with the appearance of a thin coating of myelin over the previously bared segment." 27 references.—C. K. Trueblood (Cambridge, Mass.).

2359. Herrick, C. J. Apparatus of optic and visceral correlation in the brain of *Ambystoma*. *J. comp. Psychol.*, 1944, 37, 97-105.—The purpose of the paper is to illustrate some of the specific correlations between the anatomy and physiology of the optic apparatus and the general excitatory state of the organism. The synaptic matrix provided by the neuropil is a basic integrative mechanism for all bodily activities. Its importance increases as the scale of vertebrate evolutionary development is ascended. There is also an increase in the development of preferential pathways from the primitive neuropil. The Amphibia represent a stage in neural evolution prodromal to the development of sharply defined cellular nuclei in higher forms. The author describes some of the anatomical pathways by which fibers of visceral sensory origin are interwoven with terminals

of the basal optic tract in the peduncular neuropil. The anatomical pattern of the optic and visceral pathways and of the connections at the base of the midbrain is described. It is suggested that their function is not primarily activation of skeletal musculature but concerns rather a sensitization of the "motor pool" of the peduncle and oculomotor nucleus, thus modifying the primary patterns of performance. The neuropil provides a ground upon which the varieties of excitation pattern arise. With the evolution of more complex partial patterns, there is a corresponding increase in the differentiation of the neural structure. The adequate exploration of this problem needs the combined efforts of the comparative anatomist and specialists in the related biological fields.—*L. I. O'Kelly* (U. S. Army).

2360. Kisker, G. W. Psychoneurological problems related to the surgical transection of the prefrontal association areas in man. *J. nerv. ment. Dis.*, 1944, 99, 343-355.—The facts and theories regarding the neurological relations underlying the behavioral changes occurring after frontal lobotomy are discussed. On the basis of experimental work, the author concludes that "the principal neural tracts affected by bilateral prefrontal lobotomy are those making up the corticothalamic system, particularly the anterior thalamic peduncle. . . . Despite the fact that other tracts do not appear to be structurally affected by the lobotomy, the facts of brain organization point to the possibility of functional repatterning mediated through frontal integrations with other cerebral, subcerebral and spinal centers." It is suggested that the behavioral changes accompanying lobotomy are due to "the disruption of the neural chain consisting of the prefrontal association areas, the thalamus and the cerebello-pontine centers." Bibliography of 47 titles.—*L. B. Heathers* (Smith).

2361. Knott, J. R., & Gottlieb, J. S. Changes in the EEG following insulin shock therapy. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 535-537.—*C. K. Trueblood* (Cambridge, Mass.).

2362. Knott, J. R., Gottlieb, J. S., Leet, H. S., & Hadley, H. D. Changes in the EEG following metrazol shock therapy. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 529-534.—*C. K. Trueblood* (Cambridge, Mass.).

2363. Langworthy, O. R. General principles of autonomic innervation. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 590-602.—The author reviews the general principles of autonomic innervation and the relation of sympathetic and parasympathetic influences in the light of work done in this field in the last 20 years.—*C. K. Trueblood* (Cambridge, Mass.).

2364. Motokawa, K. Die elekrenkephalographische Untersuchung des Entstehungsmechanismus der periodischen Nachbilder. (Electroencephalographic studies of the conditioning mechanisms for periodic afterimages.) *Tohoku J. exp. Med.*, 1941, 40, 48-77.—While acting as subject in Mita's experiment, the author noted that after the alpha waves had been suppressed by a light stimulus, they went through a rather long period of recovery, during which time their amplitude fluctuated until they returned to their normal size. He noticed also that the afterimage went through a similar period of fluctuation. He points out that Jasper and Cruikshank (see

11: 5454) noted the same phenomenon. The present article is a further study of this fluctuation. In the curve of the Berger rhythm one notices two superimposed amplitudes, one of 8-15 sec. and one of 40-60 sec. The former coincides with the fluctuations of the afterimages; the latter, with that of winking. The alpha waves are, in general, suppressed in the afterimage phase, and in their place appear delta waves. In the dark intervals between afterimages, there are alpha-wave spindles, and these coincide satisfactorily with the afterimages. The periodic afterimages are ascribed to the rhythmic activity of the cortical visual center.—*T. V. Moore* (Catholic University of America).

2365. Pacella, B. L. Use of electroencephalography in the war effort. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 622-624.—Abstract and discussion.

2366. Rossen, R., Kabot, H., & Anderson, J. P. Acute arrest of cerebral function in man. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 510-528.—"A new method has been devised to produce complete arrest of the cerebral circulation in man. . . . In normal young men this results in fixation of the eyes, tingling, constriction of the visual fields, loss of consciousness and, immediately after restoration of blood flow, a brief mild tonic and clonic seizure. The average time for arrest of cerebral circulation to loss of consciousness is 6.8 seconds. This coincides with the sudden appearance of the delta wave in the EEG. . . . Considerable individual variation has been noted in sensitivity of normal young men to acute arrest of circulation in the brain. This variation is apparently due to differences in cerebral metabolism in different persons. The resistance to acute anoxia is fairly constant for the same person at different times." Other findings are reported. 50 references.—*C. K. Trueblood* (Cambridge, Mass.).

2367. Simkins, C. S. Sympathetic and parasympathetic influences compared. *Bull. Creighton Univ. Sch. Med.*, 1944, 2, No. 9, 11-14.

2368. Ulett, G., Jr., Dow, R. S., & Larsell, O. The inception of conductivity in the corpus callosum and the cortico-ponto-cerebellar pathway of young rabbits with reference to myelinization. *J. comp. Neurol.*, 1944, 80, 1-10.—Using a cathode-ray oscillosograph, the authors determined at what age in postnatal rabbits nervous impulses could be transmitted over fibers of the corpus callosum and the cortico-ponto-cerebellar pathway. In these specimens they also determined the degree of myelinization of the same pathways. They found that electrically aroused nerve impulses were conducted by fibers of the corpus callosum in 1- to 5-day-old rabbits and in the cortico-ponto-cerebellar path in 2- to 5-day-old rabbits. Within this age range no myelinization of fibers was found in these pathways. The authors concluded that conduction of nervous impulses normally precedes myelinization by several days.—*C. P. Stone* (Stanford).

[See also abstracts 2370, 2375, 2380, 2413, 2455, 2458.]

RECEPTIVE AND PERCEPTUAL PROCESSES

2369. Behan, R. J. Value of pain in diagnosis. *Med. Rec.*, N. Y., 1944, 157, 227-229.—A brief

general discussion is offered of pain, its types, attributes, associated conditions, and diagnostic significances.—*M. H. Erickson* (Eloise Hospital).

2370. Behan, R. J. Pain due to involvement of the sympathetic nervous system. *Trans. Amer. ther. Soc.*, 1942, 42, 92-106.—Sympathetic fibers probably do not transmit pain impulses directly but do transmit a type of impulse which under appropriate conditions can induce pain sensations. The most reasonable explanation seems to be that impulses arising in the sympathetic system are transmitted to the periphery by fibrils accompanying the vasomotor fibers. There they produce irritating substances which stimulate the pain receptors, and the impulses are transmitted through the usual somatic pain pathways. The wide diffusion and variable distribution of sympathetic pain are explained by the fusing of sympathetic fibers into broad networks which form meshes around individual muscle fibers and sensory end organs. The characteristics of sympathetic pain and its differential diagnosis from pain of cerebrospinal origin, hysterical pain, and malingering are discussed; also, the treatment. The connection with emotion may possibly be explained by vascular cutaneous influences. Although the reaction of sympathetic fibers to irritation is less than that of cerebrospinal fibers, they are peculiarly susceptible to stretching or traction.—*M. E. Morse* (Baltimore, Md.).

2371. Burrows, H. Some sensory effects of wounds. *Lancet*, 1944, 246, 84-85.—"Sudden severe wounds are at first painless. A recently wounded limb with intact artery and nerve trunks may be weak and relatively insensitive. The distribution and mode of recovery of these defects are like those of 'hysterical' or 'functional' disabilities. Wounds of the interosseous region of the forearm are apt to be followed by a permanent failure of accommodation of the hand to cold and a persistent tendency to numbness of the fingers."—*C. K. Trueblood* (Cambridge, Mass.).

2372. Chapman, W. P., & Jones, C. M. Variations in cutaneous and visceral pain sensitivity in normal subjects. *J. clin. Invest.*, 1944, 23, 81-91.—Two hundred normal subjects, ranging in age from 10 to 85 years and of various races, were tested for cutaneous pain sensitivity by a modification of the Hardy, Wolff and Goodell apparatus. Visceral sensitivity was also tested in 29 by balloon distention of the esophagus. Pain perception threshold was measured as a sharp jab sensation; pain reaction threshold, as a wincing observed at the outer canthus; and visceral sensitivity, as a sensation of substernal fullness. Age and race were the only factors having a conclusive bearing on variations. Negroes and the Mediterranean races had lower pain perception and pain reaction thresholds than Northern Europeans. Among various factors, only mental fatigue and nervous tension produced changes in pain sensitivity—a fall in perception and reaction thresholds. The visceral sensory threshold correlated with that of cutaneous pain perception. What is described as pain perception probably represents a purely sensory phenomenon, and pain reaction a psychological phenomenon. In disease, pain reaction may be more important than differences in pain perception.—*M. E. Morse* (Baltimore, Md.).

2373. Evans, J. N., & Browder, J. A problem of split macula: study of the visual fields. *Arch. Ophthal.*, Chicago, 1944, 31, 43-53.—In a patient where a clean splitting of the chiasm had been produced surgically, perimetric studies of the visual fields indicated a spring of the macula by about 10°. Photographs of the eye movements indicated a failure to maintain normally accurate fixation, but showed that the deviations were of approximately 1.25° in the horizontal meridian. Fields plotted on a campimeter revealed a small finger-like scotoma which the authors consider responsible for the decreased acuity (6/12) and which they consider to represent an area supplied by nerve fibres which had crossed in the chiasm.—*M. R. Stoll* (American Optical Co.).

2374. Fry, G. A. A quantitative formulation of color mixture and chroma discrimination data for dichromats. *J. opt. Soc. Amer.*, 1944, 34, 159-166.—Dichromats are able to match any mixture of spectral colors by a combination of two spectral primaries, a blue and a red. The proportion of each primary in the matching color may be related to the wave length of the color to be matched by the use of an equation which contains two constants. One of these constants remains nearly the same for all dichromats, whereas the other one must be evaluated for each individual observer.—*L. A. Riggs* (Brown).

2375. Gordon, G., & Whitteridge, D. Conduction-time for human pain sensation. *Lancet*, 1943, 245, 700-701.

2376. Göthlin, G. F. Experimental determination of the short wave fundamental color in man's color sense. *J. opt. Soc. Amer.*, 1944, 34, 147-158.—A definite choice between violet and blue for the short wave component in Young's three-color hypothesis has never been possible on the basis of experiments on color mixture or hue discrimination. That blue is the desired fundamental color is indicated by a series of experiments on the threshold energies for the appearance of color in spectral light whose wave length varies from 430 to 455 mμ. As the energy is increased from zero, four of the five observers first identify the color as blue. When the energy is made several times greater, a red component is identified. The difference in threshold values for the blue and the red sensation is statistically significant for three of the observers. No observer reported an appearance of violet or green prior to the appearance of blue. It is concluded that "blue has its own receptors and is identical with the short wave fundamental color, the existence of which the three-color hypothesis assumes, while violet is not a fundamental color with special receptors."—*L. A. Riggs* (Brown).

2377. Guggenheim, L. Therapy of deafness. Part III. Report of cases. *Laryngoscope*, St Louis, 1943, 53, 571-588.—The author discusses the results of treatment of children under 13 years of age for deafness. He recommends that all schools require for admission a certificate of examination from a pediatrician, an ophthalmologist, and an otolaryngologist.—*C. K. Trueblood* (Cambridge, Mass.).

2378. Guggenheim, L. Therapy of deafness. Part IV. Report of cases. *Laryngoscope*, St Louis, 1943, 53, 653-688.—In this paper the author discusses the possibilities of ameliorating long continued

deafness in adults. 15 references.—C. K. Trueblood (Cambridge, Mass.).

2379. Harris, R. H. Comparison of the Ishihara and the American Optical Company series of pseudo-isochromatic plates. *Arch. Ophthal., Chicago*, 1944, 31, 163-164.—The Ishihara test plates are found to be more difficult in some instances than the plates distributed by the American Optical Company, and they are therefore recommended as providing a more efficient test. It is also desirable that tests not be available to candidates for preliminary study.—M. R. Stoll (American Optical Co.).

2380. Hartline, H. K. The neural mechanisms of vision. *Harvey Lect.*, 1941-1942, 37, 39-68.—Hartline's electrophysiological experiments, here reviewed, constitute the first steps in the unitary analysis of the visual mechanisms of the invertebrate and vertebrate eye. They show that the visual cells initiate trains of impulses closely resembling the sensory discharges from other kinds of receptors. Evidence for the photochemical basis of sensitivity to light of the visual receptors is given, but the processes whereby light energy is translated into nerve impulses are not understood. The early part of the action of receptors on the higher neurons in the visual path was studied by recording the ganglion cell responses of the vertebrate retina. This activity is governed by principles familiar from studies of the central nervous system. The study of these retinal neurons emphasizes the necessity for considering patterns of activity in the nervous system. The most striking feature of the activity of vertebrate optic fibers, wherein they differ from simple sensory discharges, is their wide diversity of response, a given fiber having its fixed pattern. This diversity may reasonably be ascribed to the complex ganglionic structures between the receptors and the axons of the ganglion cells. The interplay of excitation and inhibition characteristic of central nervous activity is a prominent feature of retinal function.—M. E. Morse (Baltimore, Md.).

2381. Kekcheev, K. The problem of night vision. *Amer. Rev. Soviet Med.*, 1944, 1, 300-302.—The importance of scotopic vision in modern warfare is pointed out, and methods used by Russian investigation to augment nocturnal sight are briefly reviewed. These investigations suggest that feeble or short stimulation of any other receptor will enhance night vision (visual acuity, absolute thresholds), whereas intense or prolonged stimulation produces an inverse effect. These effects are explained by the presence of centrifugal fibers from the sympathetic nervous system to the retina. Taste, cold, and moderate proprioceptive stimuli are considered to be the most practical and convenient for facilitating night vision. When applied once, they "increased the intensity of night vision 30-60 percent for a period of 1½ hours . . . and the dark adaptation period was reduced to 5-6 minutes."—L. C. Mead (Tufts).

2382. Orton, S. T. Visual functions in strephosymbolia. *Arch. Ophthal., Chicago*, 1943, 30, 707-717.—Strephosymbolia is Orton's term for a syndrome where reading and spelling disabilities are associated with tendencies to reverse order and to excel in mirror writing. These difficulties Orton considers to be due to a failure to elide the engram of the non-

dominant hemisphere. An inherited tendency toward use of the right hemisphere of the brain may explain the higher frequency of left eye and hand dominance and of mixed dominance in this group. Family histories of children with strephosymbolia suggest that these children represent intergrades between right-sided and left-sided familial tendencies. Thus hereditary factors, not such visual difficulties as ametropia and heterophoria, account for the reading difficulties of these patients. A discussion of the paper is also recorded.—M. R. Stoll (American Optical Co.).

2383. Pieretti, R. V. Influencia de la vitamina "A" en la adaptación luminosa ocular. Experiencias biofotométricas. (Effect of vitamin A on light adaptation; biophotometric experiments.) *Arch. venez. Soc. Oto-rino-laringol. Neurol.*, 1943, 4, 180-209.—Protocols of 34 cases whose light adaptation was improved by vitamin A treatment are given. Cases were taken at random from the local population.—H. D. Spoerl (American International College).

2384. Rosenblum, D. E. The nature and origin of altitude pains. *Amer. Rev. Soviet Med.*, 1944, 1, 303-309.—The altitude pains studied are those localized in the joints and surrounding tissues at altitudes over 8,000 meters. Three theories as to the etiology of these altitude pains are briefly discussed. One of these theories, namely, that the pains are symptoms of caisson disease in which nitrogen bubbles are released in the tissues after decompression, is supported by this experimental investigation which utilized an altitude chamber. Ten men, out of a group of 13, had no altitude pain when they eliminated (washed out) nitrogen from their bodily tissues by breathing oxygen before ascent. Further experiments were performed with goats, dogs, and rabbits to determine whether decompression produced gas emboli in the vascular system. Lowering pressure in a few seconds to a fraction of one atmosphere produced the typical symptoms of bends in the animals. Autopsies of the mortalities showed gas emboli in the vascular system, more bubbles being present in the veins than arteries. No abnormalities of the parenchyma of the lungs were found.—L. C. Mead (Tufts).

2385. Sugar, H. S. Binocular refraction with cross cylinder technic. *Arch. Ophthal., Chicago*, 1944, 31, 34-42.—Explanations for occasional changes in astigmatic axes apparently are to be found not in differences in pupil size but in lenticular changes associated with accommodation, fusional compensations, and torsional movements of the globe. In a series of 70 eyes with astigmatism of 1.00 D. or more, 33 showed shifts in astigmatic axis. There was a difference between the cycloplegic and post-cycloplegic monocular test in 24 cases; 4 showed differences between monocular and binocular vision at 20 ft.; 14 showed differences for binocular fixation at 20 ft. and at 10 in. Cross cylinder checks are recommended for accurate determination of power and axis of astigmatism under conditions of binocular vision.—M. R. Stoll (American Optical Co.).

[See also abstracts 2364, 2405, 2447, 2512, 2521, 2541, 2545, 2585, 2596.]

LEARNING, CONDITIONING,
INTELLIGENCE

(incl. Attention, Thought)

2386. Armstrong, L. Testing the meaning of abstraction. *Peabody J. Educ.*, 1943, 20, 290-293.—Testing the meaning of abstraction is advised as a prerequisite to critical thinking in the social studies. The procedure requires the student: (1) to read a selected quotation; (2) to describe the difficulty involved in portions of the quotation; (3) to test portions of the quotation; and (4) to state and justify a conclusion as to the meaningfulness of the assertion.—*N. B. Cuff* (Eastern Kentucky).

2387. Carroll, J. B. The factorial representation of mental ability and academic achievement. *Educ. psychol. Measmt.*, 1943, 3, 307-332.—A battery of mental ability and achievement measures including scores derived from vocabulary, grammar, reading rate, reading comprehension, rote memory, reasoning, contemporary affairs, psychological information, a verbal score from the ACE, academic grades, and English composition grades was obtained from 88 women psychology students. Analysis revealed factors in verbal, deductive, rote memory, and various achievement areas. Mental ability and achievement were found not highly related. The author concludes that the tendency to acquire knowledge is not a general trait.—*L. S. Kogan* (Rochester).

2388. Harlow, H. F. Studies in discrimination learning by monkeys: I. The learning of discrimination series and the reversal of discrimination series. *J. gen. Psychol.*, 1944, 30, 3-12.—In this investigation of the nature of discrimination learning and reversal of discrimination learning, with emphasis on the ability of subhuman animals to form sets or attitudes conducive to rapid acquisition of new discriminative responses, 6 rhesus monkeys were trained in a series of discrimination tests using the "implicit correction" method. Discrimination objects differed in a variety of nonspatial characteristics. A preliminary training series consisted of the learning of 5 successive discriminations to a criterion of 23 correct responses in 25 trials. This was followed by (1) a discrimination learning series, consisting of tests on 15 pairs of stimulus objects (criterion, 10 consecutive correct responses), (2) a reversed discrimination series, consisting of the relearning and reversal of the first 10 pairs used in (1), and (3) a discrimination reversal following overlearning series in which 20 additional problems were overlearned by 40 trials. The average error score for the discrimination learning series was 1.3 (chance = 0.5); for the discrimination reversal series, 2.1 (chance = 0.0). Overlearning of discrimination markedly increased the relative but not the absolute number of errors on reversals. "Once a monkey has solved a preliminary series of discriminations and has formed habits of responding to stimulus objects regardless of their position in space, later discriminations will be solved in a single trial or less, in a majority of cases."—*H. H. Nowlis* (Connecticut).

2389. Harlow, H. F. Studies in discrimination learning by monkeys: II. Discrimination learning without primary reinforcement. *J. gen. Psychol.*, 1944, 30, 13-21.—Three rhesus monkeys were given

(1) preliminary discrimination training, (2) training for one reinforcing trial discrimination, to prepare the subject for (3) training for zero trial discrimination, in order to "test whether or not monkeys could form consistent response tendencies to the unlike members of each of a series of paired discrimination objects, before any reinforcing trials were given." The "non-correction" method of trial presentation was used. Three specific methods were used in the formation of the zero reinforcing trial discriminations: Method A—the positive and negative stimulus-objects of a single pair simultaneously presented during sign procedure (food held over positive object or positive object merely tapped); Method B—only positive stimulus object presented in sign procedure; Method C—single pair of stimulus objects used with only positive one presented in sign procedure. "Upon solution of this problem all subjects were trained to solve a series of discriminations following a single training trial in which the reinforcing agent was a signified or 'expected' reward, never an attained reward. No subject failed to effect the criterion of learning established for each of the three methods utilized."—*H. H. Nowlis* (Connecticut).

2390. Herbert, M. J., & Harsh, C. M. Observational learning by cats. *J. comp. Psychol.*, 1944, 37, 81-95.—After reviewing the literature on imitation, the authors describe 5 experiments designed to facilitate observation of any imitation which might occur during the learning process. Previous studies have utilized a demonstrator already highly trained in the problem to be mastered by the trainee. In the present experiments a variety of experimental settings were used, and 13 animals were used in rotation as observer and demonstrator. From their results the authors conclude: "(1) On problems within their normal range of ability, cats benefit from observing the learning process of another cat. (2) Observation of fifteen skilled performances is much less beneficial than observation of the learning process. (3) The relative advantage of observation of the learning process, as compared to observation of skilled performances, is greater when more incorrect manipulations of the problem mechanism are possible."—*L. I. O'Kelly* (U. S. Army).

2391. Irwin, F. W. The realism of expectations. *Psychol. Rev.*, 1944, 51, 120-126.—Levels of expectation are considered to be distributed along a continuum with realistic at one extreme and unrealistic at the other. Experimental data were analyzed with reference to the several criteria. Reliability and generality of the level of expectation were shown to be sensitive to the position of the expectations on the realism-unrealism continuum. Failure to control this characteristic of expectations may lead to disagreements in conclusions arrived at in different studies.—*M. A. Tinker* (Minnesota).

2392. Ivanov-Smolenski, A. G. [Ed.] Opit sistematicheskovo eksperimentalnovo issledovaniya ontogeneticheskovo razvitiia korkovoi dinamiki cheloveka. (An attempt at systematic experimental investigation of the ontogenetic development of cortical dynamics in man.) Vol. 5. Moscow: Medgiz, 1940. Pp. 278.—[Abstracted review; original not seen.] This volume contains 20 papers by 13 authors. Various conditioning phenomena are related to the ages (5-6, 8-9, and 11-12) of three

groups of children. The three general areas investigated were: (1) the establishment of conditioned responses, (2) the ontogenetic development of different forms of inhibition, and (3) the dynamics of the development of cortical synthesis and analysis. Although younger children were conditioned with greater ease, the latent period was shorter, and the response more persistent and less readily inhibited in the older age groups. Younger children were more effectively conditioned by single components of simultaneously applied compound stimuli, whereas older children conditioned more readily to successively applied compound stimuli. Passive forms of inhibition (external inhibition and negative induction) were more readily invoked at lower ages, while active forms (internal inhibition), as well as positive induction and resistance to external inhibition, were found in older children. The latter group also showed better responses to verbal conditioning.—*L. C. Mead* (Tufts).

2393. Mayer-Gross, W. Retrograde amnesia. *Lancet*, 1943, 245, 603-605.—"In patients experiencing electrically induced convulsions retrograde amnesia was found for material memorized during the last minute before the fit. Patients more often showed retrograde amnesia for the recall of material than for its recognition. In only one-tenth of the experiments was retrograde amnesia longer than one minute. The time interval between fit and test influenced the results of testing. Shrinking of retrograde amnesia, though suggested by the difference in findings, could not be plainly demonstrated. In contrast to the idea that retrograde amnesia is caused by the destruction of memory traces, the theory is proposed that the cerebral injury interrupts the consolidation of recent memories. This is analogous to the phenomenon of retroactive inhibition in normal psychology."—*C. K. Trueblood* (Cambridge, Mass.).

2394. Morgan, C. L., & Bailey, W. L. The effect of context on learning a vocabulary. *J. educ. Psychol.*, 1943, 34, 561-565.—Passages prepared in an artificial language were translated by two groups of 42 students, matched for scores on ACE and Iowa Silent Reading tests. Dictionaries of the "language" were provided. The same word frequencies occurred in the materials used by both groups, but one had a story, providing context, while the other did not. When test scores for immediate and delayed recall of vocabulary were compared, the non-context group was consistently but not reliably superior. The context group required somewhat less time for translation and used the dictionary less, but these differences were also not statistically reliable. It is suggested that these latter differences were responsible for the disparity in the recall scores.—*E. B. Mallory* (Wellesley).

2395. Morgan, J. J. B. Following the path of least resistance in thinking. *J. educ. Psychol.*, 1944, 35, 27-38.—Logical thinking may be warped not only by propaganda or emotional bias but also by simple habit patterns. Two hundred college students were told that pressing certain combinations of buttons made a bell ring, and they were then asked to rank the buttons from 1 to 9, in the order of their relative importance in causing the bell to ring. These buttons were designated by letters. The results show

that not only logic but alphabetical sequences helped determine the order reported. What the individuals believed to be logical discrimination in some instances "turned out to be little more than the free following of a simple verbal habit."—*E. B. Mallory* (Wellesley).

2396. O'Brien, C. C. Part and whole methods in the memorization of music. *J. educ. Psychol.*, 1943, 34, 552-560.—Four graduate students in music served as subjects in learning piano selections of several types under various conditions. Time-saving measures were used. In general, the part method was more economical than the whole method. This result was found most consistently when the visual or kinesthetic rather than the auditory mode of learning was predominant.—*E. B. Mallory* (Wellesley).

2397. Price, B., Kostir, W. J., & Taylor, W. M. A twin-controlled experiment on the learning of auxiliary languages. *Genet. Psychol. Monogr.*, 1944, 29, 117-154.—This paper presents a method of studying the comparative ease of learning two languages, one of which was naturalistic (Occidental) and the other schematic (Simplified Esperanto). Two sets of identical twins (aged 24 and 29 years) served as subjects. One member of each pair learned the naturalistic language, while the other member learned the schematic language. Intensive training was given to all four subjects. The authors conclude that there is "no tendency for the learning rate of the 'schematic' language to approach that for the 'naturalistic' language." Consequently, any auxiliary language should utilize to a considerable extent the established language forms which the naturalistic emphasis represents.—*L. Long* (College of the City of New York).

2398. Schlosberg, H. Consistent conditioned hand-withdrawal in the elementary laboratory. *J. exp. Psychol.*, 1944, 34, 84-85.—A technique is described by which conditioned hand withdrawals can be established in over 90% of subjects in 1-1.5 hours.—*M. J. Zigler* (Wellesley).

[See also abstracts 2422, 2455, 2503, 2560, 2561, 2564, 2588, 2601, 2609, 2625, 2633.]

MOTOR AND GLANDULAR RESPONSES (incl. Emotion, Sleep)

2399. Adams, R. Marihuana. *Harvey Lect.*, 1941-1942, 37, 168-197.—The intoxicating action of hemp (*Cannabis sativa*) is described in some of the earliest medical treatises, and its active principle is known by several names (marijuana, hashish, etc.). The medical literature on its effects is confusing. Adams reports the results of a comprehensive study (the first ever recorded) on the mental and physical effects of a purified extract. The subjects were recruits from a prison population and several scientists. The pharmacological action somewhat resembles atropine and the psychiatric, alcohol. The psychiatric symptoms are euphoria, loquaciousness, lowering of inhibitions, feeling of being "high" and detached, uncontrollable laughter, hunger, drowsiness, and pleasant fatigue. The frequency of the alpha wave in the EEG is increased. Marijuana produces tolerance but no craving, withdrawal symptoms, or permanent deleterious effects, either mental or physi-

cal. Its possible therapeutic value is discussed in relation to depressions, organic conditions in which dysphoria is a factor, psychoneuroses with lack of appetite, treatment of chronic alcoholism, and amelioration of withdrawal symptoms in narcotic addicts.—*M. H. Morse* (Baltimore, Md.).

2400. Berens, C. & Sells, S. B. Experimental studies on fatigue of accommodation. I. Plan of research and observations on recession of near point of accommodation following a period of interpolated work on the ophthalmic ergograph. *Arch. Ophthal., Chicago*, 1944, 31, 148-159.—Fifty-seven subjects, ranging in age from 9 to 54 (with 47 under 21), were subjected to a series of 12 tests. On each test the subject worked on the Berens ergograph for a period of approximately 30 min. The near point of accommodation was determined before and after each test. Illumination was 5 foot-candles and 50 foot-candles, with the astigmatic cross and letters used for different groups of tests. Each group included a work period with the left eye occluded, with the right eye occluded, and with both eyes working. Mean results of the near point tests show recession of the near point of accommodation for the eye which had been working and also, usually of lesser degree, for the other eye and for binocular vision. These differences were found to be statistically significant.—*M. R. Stoll* (American Optical Co.).

2401. Butler, C. G., Jeffree, E. P., & Kalmus, H. The behavior of a population of honeybees on an artificial and on a natural crop. *J. exp. Biol.*, 1943, 20, 65-73.—"One hundred and twelve Petri dishes filled with sugar syrup were arranged at 20 yard intervals from each other in a meadow. Individual bees were observed to visit one chosen dish with great regularity for one or more days, provided the supply did not become exhausted. . . . Bees were deterred from collecting syrup from dishes placed even partially in shade; they very seldom worked beneath the shade of trees. . . . When two different concentrations of syrup were offered in different groups of dishes simultaneously, the number of visitors to the dishes containing the syrup of high concentration rose considerably higher than that of the visitors to the low concentration syrup. . . . Only a small proportion of the population of bees working on a particular dish could be found feeding there at any one time, whereas on a patch of flowering plants, under good weather conditions, most of the population visiting that patch would be found there at any one time."—*C. K. Trueblood* (Cambridge, Mass.).

2402. Cooper, J. B. A description of parturition in the domestic cat. *J. comp. Psychol.*, 1944, 37, 71-79.—The author presents a detailed description of parturient behavior in a Siamese domestic cat and includes photographs of the animal at various stages of the delivery process. It was noted that the response pattern is highly variable and free of stereotypy. Although a chain-like succession of response is necessitated by the actual mechanics of birth, there is no regular order for the occurrence or duration of the component responses. From his own experience and from the accounts in the literature, the author concludes that "provided the environmental and physiological conditions are correct, sequences of patterns will occur which are, in such a grouping, parturition."—*L. I. O'Kelly* (U. S. Army).

2403. Dunker, E., & Schwarz, W. Eine neue Methode zur Atemvolumenregistrierung. (A new method for registering respiratory volume.) *Pflüg. Arch. ges. Physiol.*, 1943, 247, 89-94.

2404. Eastham, L. E. S., & McCully, S. B. The oviposition responses of *Calandra granaria* Linn. *J. exp. Biol.*, 1943, 20, 35-42.—*C. K. Trueblood* (Cambridge, Mass.).

2405. Haldane, J. B. S. New paths in genetics. New York: Harper, 1942. Pp. 206. \$2.50.—The five chapters of this book are entitled: the science of genetics, genetics and biochemistry, genetics and development, the genetics of some human abnormalities, and the formal genetics of man. The last two chapters present data and discuss such factors as mongolian imbecility, mental defectives, linkage of color blindness and hemophilia, myopic night blindness, and deuteranopia.—*F. A. Mote* (Connecticut).

2406. Jackson, I. M. The cry of the child in utero. *Brit. med. J.*, 1943, 2, 266-267.—It is possible for the child to be stillborn and yet have its lungs partly aerated. In some cases this cry of the child may also be a warning of fetal asphyxia, which requires a rapid delivery. It is necessary for air to be present in the uterus for the condition to occur, and the fetus must inspire in order to produce a cry. A gentle, whimpering cry, unassociated with asphyxia, may occur before or early in labor, because of air instead of liquor passing in and out of the chest. It has been suggested that a second type of cry, gasping, is due to anoxemia of the higher nervous centers releasing the lower medulla. Another possibility is that air in the uterus may be suddenly forced past a fold of membrane or vagina by contraction of the uterus, producing a simulated fetal cry.—*E. Verville* (Wisconsin).

2407. Jacobson, E. The cultivation of physiological relaxation. *Ann. intern. Med.*, 1943, 19, 965-972.—Although knowledge of the need for relaxation is widespread, its physiological aspects receive scant attention, and it is not realized how technical the field has become. It is still thought of in terms of hobbies, sports, warm baths, and daily rests. Physiological relaxation, however, is carried out along pedagogical lines, as a skill, and suggestion is strictly avoided. Except in serious organic conditions, the individual's usual activities are not limited. Fears and anxiety can be "relaxed away." Practice in general relaxation can contribute toward differential relaxation. The technique is described, and the recordings on 7 normal subjects before and after training are given.—*M. E. Morse* (Baltimore, Md.).

2408. Lees, A. D. On the behavior of wire worms of the genus *Agriotes* Esch. (Coleoptera, Elateridae). II. Reactions to moisture. *J. exp. Biol.*, 1943, 20, 54-60.—"Wire worms migrate rapidly out of dry sand and aggregate in wet sand. This is due solely to the differential effect of moisture on the burrowing activity. Burrowing wire worms do not respond to gravity. The feeding activity of a small population of larvae was found to be much greater at low than at high moistures. This is partly the result of the inactivity of the larvae when exposed to high moistures, and their consequent failure to reach the food. The presence of excess moisture, however, also has the effect of inhibiting all muscular activity."—*C. K. Trueblood* (Cambridge, Mass.).

2409. Malcolm, J. A. *Vertigo. Laryngoscope, St Louis*, 1943, 53, 755-758.—The author discusses the symptoms of vertigo and its mechanism as a conflict of stimuli within the vestibular system which results in spatial disorientation. Mention is also made of neurological conditions causing vertigo.—C. K. Trueblood (Cambridge, Mass.).

2410. Mills, C. A. *The longevity of the eminent. Science*, 1944, 99, 345.—The author answers criticisms which have been brought against a previous article (see 17: 113) dealing with the existence of a curvilinear relationship he found between mean age at time of death and degree of eminence for American physicians.—F. A. Mote (Connecticut).

2411. Neumann, C., Lhamon, W. T., & Cohn, A. E. *A study of factors (emotional) responsible for changes in the pattern of spontaneous rhythmic fluctuations in the volume of the vascular bed of the finger tip. J. clin. Invest.*, 1944, 23, 1-9.—Spontaneous variations in the volume of the finger tips are of 3 major types: (A) small alpha with large pulse waves, (B) small alpha with small pulse waves, and (C) large alpha with varying pulse waves. Resting individuals free from external stimuli and not carrying on intellectual activity exhibit patterns closely correlated with emotional states. Type A occurred only in relaxed subjects; type B, with dominant anxiety; and C, with less anxiety or with elation or resentment. There was no uniformity with reports of depression. A combination of emotions, no one being dominant, gave intermediate records. On the assumption that changes in the degree of autonomic activity parallel changes in emotional status, an explanation is proposed for these combinations. Type A depends upon minimal and type B upon maximal sympathetic outflow. In the first, there is little stimulus for the development of alpha waves; in the second, the small vessels cannot dilate to permit them. With a combination of emotions there are swings of tone.—M. E. Morse (Baltimore, Md.).

2412. Popov, A., & Borshchevski, I. *Effect of anoxemia on the vestibular apparatus. Amer. Rev. Soviet Med.*, 1944, 1, 310-313.—Autonomic reflexes (pallor, sweating, nausea, vomiting, etc.) were induced more readily upon rocking on a four-pole swing while breathing a lowered content of oxygen (8-12%) than while breathing normal air. In two additional series of experiments on the effects of anoxemia on induced caloric nystagmus and induced rotary nystagmus, no differences were found between results obtained at ground level and those obtained in a low pressure chamber.—L. C. Mead (Tufts).

2413. Robinson, L. J. *Electroencephalographic study during epileptic seizures related to hyperventilation. Dis. nerv. Syst.*, 1944, 5, 87-90.—Of 146 epileptic patients subjected to a 6-min. period of hyperventilation, 14 (9½%) developed seizures. The resting EEG was abnormal in 12 (85%) of these 14 cases; slow waves occurred on hyperventilation in all 14 cases. All cases having seizures showed 6 per sec. or slower waves. Petit mal attacks occurred in 12 cases, being precipitated by overbreathing in 11 cases. One grand mal seizure developed following a period of hyperventilation, and in another case involuntary crying resulted. Seizures induced by hyperventilation were similar to the patients' usual

spontaneous seizure. While the hyperventilation test is more readily available for use in the diagnosis of epilepsy, it yields fewer positive responses than does the EEG.—C. E. Henry (U. S. Naval Reserve).

2414. Silva, A. A. da. *Serão as recreações um simples passa-tempo? (Is recreation a mere pastime?) Bol. Serv. soc. Menores, S. Paulo*, 1943, 3, 72-77.—As Groos pointed out, recreation is significant in development, assisting expansion of the personality as well as progress in co-ordination. Play may be intentional or unintentional, directed by outside influences or spontaneous.—H. D. Spoerl (American International College).

2415. Sontag, L. W. *War and the fetal-maternal relationship. Marriage & Family Living*, 1944, 6, 3-4; 16.—"In summary, there is evidence that fetal environment is an extremely important factor delineating the original structure, function and behavior patterns of human beings. The alterations in fetal environment most important in war are perhaps in nutrition and in the chemical-physiological changes in the mother's body brought about by maternal emotion, and possibly fatigue. Alterations in these factors may produce infants more susceptible to disease, to rickets and scurvy, to dental decay, and children whose growth progress is slower. It is conceivable that there may be gross alterations in skeletal structure and that alterations in the structure of such organs as the central nervous system may limit the ultimate potentialities of individuals. The chemical-physiological aspect of severely disturbed maternal emotions may be responsible for the birth during wartime of children exhibiting a high incidence of unstable behavior and functional disorders, particularly of the gastro-intestinal system."—L. H. McCabe (Cambridge, Mass.).

2416. Tecoz, H. F. *Le facteur psychologique dans les exercices physiques. (The psychological factor in physical exercise.) Schweiz. med. Wschr.*, 1943, 73, 102-104.

2417. Thompson, M. E. *An experimental study of racial differences in general motor ability. J. educ. Psychol.*, 1944, 35, 49-54.—When two groups, 100 Anglo-American and 113 Mexican boys respectively, were equated for age, height, and weight, the records of 6 motor ability tests showed the Mexican boys to be superior in all events tested and significantly superior (at the 1% level) in all events except the shot put. The school population showed no significant differences between Anglo and Mexican boys in age, weight, or height, but when the records of all boys in the school were considered, irrespective of these aspects, the Mexicans were significantly superior to the Anglos in all measures of motor ability. The results challenge any theory of Anglo superiority, especially in the motor field.—E. B. Mallory (Wellesley).

2418. Vieira, D. T. *Algumas verificações experimentais sobre o estudo da fadiga. (Some experimental evidence in the study of fatigue.) Bol. Serv. soc. Menores, S. Paulo*, 1943, 3, 32-41.—Experiments on children with the ergograph generally confirmed the standard results of fatigue studies. The author used a variable task procedure, expressing quantitative results in terms of total weight raised rather than the number of raisings. Ten types of perform-

ance curves were obtained, and it is claimed that some of these differ in other than superficial ways.—*H. D. Spoerl* (American International College).

2419. Young, W. C., & Orbison, W. D. Changes in selected features of behavior in pairs of oppositely sexed chimpanzees during the sexual cycle and after ovariotomy. *J. comp. Psychol.*, 1944, 37, 107-143.—Eighteen measures of components of sexual behavior were secured in 8 female chimpanzees, paired with 3 males in 30-min. periods of observation. After preliminary periods of such observation, the ovaries were removed from 6 of the females, and postoperative observations were made. The results were correlated with follicular, luteal, and menstrual stages of the sexual cycle. Suitable statistical controls were exercised for individual differences in both male and female. Significant differences were found between follicular and luteal phases for 7 of the 18 measures: "preobservational sexual excitement of the male, the female's preobservational interest in the male, presentation, copulation, non-responsiveness of the female, non-responsiveness of the male and the time spent together." Comparison of the data with available facts from other studies of the rhesus monkey and man suggests that the chimpanzee falls in an intermediate position with relation to "the extent to which features of its social behavior are affected by cyclic fluctuations in sexual status."—*L. I. O'Kelly* (U. S. Army).

[See also abstracts 2358, 2366, 2382, 2383, 2384, 2385, 2421, 2427, 2428, 2429, 2434, 2439, 2442, 2446, 2454, 2458, 2461, 2505, 2523, 2530, 2531, 2533, 2534, 2538, 2585, 2625, 2630, 2634, 2640, 2646.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

2420. Cárcamo, C. E. La serpiente emplumada. (*Psicoanálisis de la religión maya-azteca y del sacrificio humano.*) (The plumed serpent: psychoanalysis of the Maya-Aztec religion and of human sacrifice.) *Rev. Psicoanal.*, 1943, No. 1.—[Abstracted review; original not seen.] The plumed serpent is concluded to be a bisexual symbol of fecundity which indicates a supervaluation of the life instinct. The rites of sacrifice were defenses against the incestuous implications of the correspondingly repressed death instinct.—*H. D. Spoerl* (American International College).

2421. De Forest, I. Love and anger; the two activating forces in psychoanalytic therapy. *Psychiatry*, 1944, 7, 15-29.—The emotional elements underlying neurotic conflict can be reduced to those of anxiety, hatred, and love. Psychoanalytic therapy of such a condition is divided into three periods of treatment, the first marked by "crumbling of the protective neurotic edifice, accompanied by indirect expression of hostility and tentative awareness of the tender impulses." The second period leads to "direct expression of hostility toward the analyst, with slight release of loving tendencies." In the third period there is an "acknowledgment of love for the analyst and of the value of constructive anger."—*M. H. Erickson* (Eloise Hospital).

2422. Lewy, E., & Rapaport, D. The psychoanalytic concept of memory and its relation to recent memory theories. *Psychoanal. Quart.*, 1944, 13, 16-

42.—Because of the importance to psychology of the academic concept of memory and because of the central importance to psychoanalytical theory and practice of the function of memory in psychic life, the authors present a systematic, detailed, critical discussion of the psychoanalytical concept of memory and its relation to recent academic theories of memory. 21-item bibliography.—*M. H. Erickson* (Eloise Hospital).

2423. Lhermitte, J., & Sigwald, J. Hypnagogisme, hallucinose, et hallucination. (*Hypnagogism, hallucinosis, and hallucination.*) *Rev. neurol.*, 1941, Nos. 5-6.—[Abstracted review; original not seen.] A few cases are cited in which the production of hallucinatory visual imagery is related to retinal disturbance, Parkinson's disease, and other neurological conditions, at advanced ages. Avoidance by the patients of delusional interpretations was based on the absence of central dynamic tendencies in such a direction. The involvement of illusory stimulation was excluded.—*H. D. Spoerl* (American International College).

2424. Oberndorf, C. P. Psychic determinism of Holmes and Freud. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 616-619.—Abstract and discussion.

2425. Tournay, A. Sur mes propres visions du demi-sommeil. (On my own visions during semi-sleep.) *Rev. neurol.*, 1941, Nos. 5-6.—[Abstracted review; original not seen.] The author makes a point of his title to avoid the implications of the standard concept of hypnagogic hallucination. The technique consists of careful introspection during a voluntarily maintained state of half dozing. En-topic phenomena are discussed, and it is concluded that the visions are related to the assumption of precedence by the parasympathetic nervous system. Such visions are like a spectacle, while dreams are a form of adventure. The spatial confusion and temporal disorientation of true dreams are absent.—*H. D. Spoerl* (American International College).

[See also abstract 2452.]

FUNCTIONAL DISORDERS

2426. Adler, A. Neuropsychiatric complications in victims of Boston's Cocoanut Grove disaster. *J. Amer. med. Ass.*, 1943, 123, 1098-1101.—Forty-six victims of the Cocoanut Grove fire were given neuropsychiatric examinations and were followed up for an 11-month period. There were no essential sex differences in the reactions. Twenty-nine of the 46 lost consciousness from a few minutes to over one hour, one patient having retrograde amnesia for the disaster. Forty-one remembered the outburst of flames at the start of the fire. Twenty-six developed psychiatric complications, and the majority of these persons had been unconscious only a few minutes and remembered being choked and trampled. Patients could be classed under the syndromes of general nervousness or anxiety neurosis. Symptoms of the former were irritability, fatigue, and insomnia, and two thirds of these cases cleared up within 9 months. Patients classed as anxiety neurosis complained of uncontrollable fears and anxieties, and after 9 months the symptoms were unabated in two thirds of them. Nightmares occurred in one third of the patients while they were in the hospital, but

nightmares persisting after discharge occurred only in patients with anxiety neurosis. Psychiatric patients experienced no greater loss of friends and relatives nor greater severity of burns than those who did not show psychoneurotic symptoms.—E. T. Verville (Wisconsin).

2427. Atkeson, F. W., Ibsen, H. L., & Eldridge, F. Inheritance of an epileptic type character in brown Swiss cattle. *J. Hered.*, 1944, 35, 45-48.—A condition similar to epilepsy is reported for a bull which, when mated to apparently normal cows, produced 37 offspring of which 13 were epileptic. The character is transmitted as an autosomal dominant and apparently is due to a recent mutation. The degree to which it is shown may vary, attacks occurring less frequently as the animals become older.—G. C. Schwesinger (American Museum of Natural History).

2428. Baird, P. C., Jr. Biochemical component of the manic-depressive psychosis. *J. nerv. ment. Dis.*, 1944, 99, 359-366.—This is a preliminary report of the relation between manic-depressive psychoses and the hyperfunctioning of the adrenal gland. Citrated whole blood from acutely manic patients was injected intraperitoneally into adrenalectomized cats and rats. A control group of adrenalectomized animals received equal injections of citrated whole blood from normals. The average duration of life for the 11 experimental cats was 2.7 times as long as that for the 7 control cats. Two experimental rats lived 8 times as long as 3 control rats. Only one of the cats showed manic-like behavior. The author outlines a physiological theory to explain the manic-depressive psychoses.—L. B. Heathers (Smith).

2429. Barker, L. F. Psychotherapy in the practice of geriatrics. *Publ. Hlth Rep., Wash.*, 1942, Suppl. No. 168, 88-97.—This is a brief discussion of the treatment that physicians and psychologists utilize in attempts to improve the condition of old persons by means of mental influences. Among such influences are suggestion, persuasion, isolation, psychoanalysis, educative and re-educative measures, enjoinder of rest, stimulation to activity, and guidance through wise counsel.—J. E. Zerga (Avion Inc.).

2430. Bion, W. R., & Rickman, J. Intra-group tensions in therapy; their study as the task of the group. *Lancet*, 1943, 245, 678-681.—The authors describe experiments in the group rehabilitation of neurotic military personnel by the device of inducing the whole group of neurotics to accept neurotic disability as a communal problem.—C. K. Trueblood (Cambridge, Mass.).

2431. Brown, W. T., & Moore, M. Soldiers who break down in battle; some predisposing factors. *Milit. Surg.*, 1944, 94, 160-161.

2432. De Jong, H., Kopeloff, N., & Kopeloff, L. M. Rhythmic and arrhythmic muscular activity in monkeys with recurrent convulsive seizures. *J. nerv. ment. Dis.*, 1944, 99, 376-381.—Foreign substances were attached to the precentral cortices of 7 rhesus monkeys. Muscular seizures were then induced by striking the cage or by chasing and prodding the animals. Kymographic records of involuntary arm movements were obtained by placing tubing around the most active part of the animal's arm, the animal being held by the experimenter during the recording. Arrhythmic myoclonus could be elicited

by less intense stimulation than that required to produce general rhythmic seizures. Myoclonus is regarded as a minimal, abortive epileptic seizure.—L. B. Heathers (Smith).

2433. Delgado C., C. Tratamiento de las enfermedades mentales por electro-shock. (Electric shock treatment of mental diseases.) *Rev. Neuro-Psiquiat.*, Lima, 1943, 6, 263-316.

2434. Dunbar, F. Psychosomatic diagnosis. New York: Hoeber, 1943. Pp. xiv + 741. \$7.50.—This textbook of psychosomatic medicine embodies the results of 12 years of research and clinical investigations by the author in co-operation with the staffs of the Departments of Medicine, Surgery, and Psychiatry at the Presbyterian Hospital of Columbia Medical Center. The main findings are based on a careful 5-year study of all patients (1,600) between the ages of 15-55 admitted to the hospital with the following 5 illnesses which rank among the major causes of death and disability: cardiovascular disease, diabetes, fracture, gastro-intestinal disease, and allergy. Chapters are devoted to analyses of each of these syndromes with illustrative case histories and therapeutic implications, as well as to the psychosomatic history, special supplementary techniques of examination, considerations of theory and criteria for therapy, future research and basic principles of psychosomatic diagnosis, including an evaluation of the Rorschach test to such diagnosis. Bibliography of 428 titles.—R. W. Beebe (Child Study Center of Maryland).

2435. Durkin, H. E., Glatzer, H. T., & Hirsch, J. S. Therapy of mothers in groups. *Amer. J. Orthopsychiat.*, 1944, 14, 68-76.—This is a report of work with 5 mothers who met with the therapist for 90 weekly sessions of one hour each. Each patient goes at her own pace. Even though there may be interviews when all are discussing the same subject, the material produced has different emotional implications for each. Group impacts are therapeutic chiefly because all the patients' feelings to the therapist and to each other have been brought out and accepted. The fact that each patient can talk only part of the time is compensated for by the stimulating effect of the group impacts. The authors conclude that group treatment seems profitable to the patient and seems to be a partial solution of the clinic's problem of meeting community demands.—R. E. Perl (New York City).

2436. Fultz, A. F. Music as a modality of occupational therapy. *War Med., Chicago*, 1944, 5, 139-141.—Music belongs to two different divisions of occupational therapy, the rehabilitative and the psychological. For cardiac children it provides activity with maximum rest for the heart and also develops cultural interests. For psychiatric patients it provides a zone of normality from which to extend a psychobiological approach. Patients can project conflicts on the music, or the mood pattern can be used to enhance performance, and this discipline of emotion can be transferred to more significant adjustments. Music has also a unique place as a socializing agent. The patient's level of musical satisfaction is the criterion for choice of material. The best therapeutic results are obtained when the patient is not too conscious that therapy is being administered,

and a combination of purposes is often desirable.—*M. E. Morse* (Baltimore, Md.).

2437. Garmany, G. Reactive anxiety and its treatment. *Lancet*, 1944, 246, 7-9.—An outline of reactive anxiety of war and of its treatment in a Naval depot is given. "Of 1,342 cases 1,171 (87.7%) were returned to full combatant duties. The importance of early diagnosis and avoidance of institutional treatment has been stressed. The best occupational therapy for these cases lies in full duty in service surroundings. . . . Reactive anxiety of war should be regarded as a condition not in its nature but in its maintenance and continuity. The routine employment of an involved psychotherapeutic approach is to be deprecated. A careful distinction between the reaction which constitutes an illness and that of conscious evasion of social duty is essential."—*C. K. Trueblood* (Cambridge, Mass.).

2438. Hadden, S. B. Group psychotherapy. *Arch. Neurol. Psychiat.*, Chicago, 1943, 50, 625-628. Abstract and discussion.

2439. Kennedy, F., & French, T. Borderline mental problems in late maturity. *Publ. Hlth Rep.*, Wash., 1942, Suppl. No. 168, 64-72.—This is a physiological discussion of the process of aging and its attendant physiological and psychological disorders. "Aging is, in essence, defective nutrition and oxygenation, and the supply of oxygen to the cells of the nervous system determines their energy content, longevity, and health."—*J. E. Zerga* (Avion Inc.).

2440. Klein, D. B. Mental hygiene: the psychology of personal adjustment. New York: Holt, 1944. Pp. xiii + 498. \$2.80.—The author deals with the nature of mental disease and methods of prevention. The final section is concerned with methods of promoting mental health, treating such problems as the conscience, motivation, morale, and the role of repression.—*L. B. Heathers* (Smith).

2441. Kolb, L. The integration of mental health and public health programs. *Penn. Hlth*, 1942, 3, 10-18.—Kolb outlines the functions of a bureau of mental hygiene within a health department. An adequate development of mental hygiene clinics will come only through the activity of health departments, operating independently of mental hospitals although co-operating with them. Chronic alcoholism comes within the field of these clinics. The Federal government should co-ordinate, conduct, and subsidize research in mental diseases.—*M. E. Morse* (Baltimore, Md.).

2442. Lawton, G., & Klineberg, O. Psychological guidance to older persons. *Publ. Hlth Rep.*, Wash., 1942, Suppl. No. 168, 73-87.—"The process of improving faulty adjustments at any age level consists in several steps: 1. An appraisal of the individual's equipment: skills, interests, social reactions, emotional patterns. 2. An appraisal of social situations and resources, extending from the family and the community up to even larger units. 3. A reduction of conflicts within the individual or between the individual and the social group. This may come as a result of effecting changes in the individual or in his social group, or in both." The first problem, as far as older people are concerned, is to measure mental, emotional, and social deterioration in clinical, indus-

trial, and educational situations.—*J. E. Zerga* (Avion, Inc.).

2443. Lewis, N. D. C. Perspectives on the mental hygiene of to-morrow. *Ment. Hyg.*, N. Y., 1944, 28, 15-22.—Early recognition and therapy of emotional conflicts in children by pediatricians, the teaching of mental hygiene throughout the formal educational period of the child and the adult, the training of more psychiatrists, and basic financial support of psychiatric research in a systematic way are advocated.—*W. L. Wilkins* (U. S. Naval Reserve).

2444. Lindner, R. M. A formulation of psychopathic personality. *Psychiatry*, 1944, 7, 59-63.—The author classifies psychopathic personality as a compulsive disorder characterized by restraint-free behavior. He lists the symptomatology of the disorder, discusses briefly the questions of etiology, and offers a 5-group classification of psychopathic personalities. Problems of differential diagnosis and a brief statement of the incidence, course, prognosis, and the handling of psychopathic personalities follow.—*M. H. Erickson* (Eloise Hospital).

2445. López Ibor, J. Modalidades psicopatológicas de las ideas delirantes. (Psychopathological modalities of delirious ideas.) *Act. esp. Neurol. Psiquiat.*, 1941, No. 1.—[Abstracted review; original not seen.] Phenomena of delirium belong to a wide range of psychopathological situations; existing terminologies are not satisfactorily distinctive. Full delusion involves disturbance of judgment as well as of consciousness. One approach to classification considers the degree of seriousness of the manifestation; another makes use of the concept of directed involvement of the person. The psychology of revelation, as in schizophrenia, furnishes important clues.—*H. D. Spoerl* (American International College).

2446. Malamud, W., & Dayton, N. A. Mental disorders of the aged; arteriosclerotic and senile psychoses. *Publ. Hlth Rep.*, Wash., 1942, Suppl. No. 168, 104-117.—The authors discuss the arteriosclerotic and senile psychoses from the standpoint of physiology, histology, sociology, and psychology and present a number of tables showing trend lines of admission rates of patients, by age and sex, to mental hospitals.—*J. E. Zerga* (Avion, Inc.).

2447. McAlpine, P. T. Hysterical visual defects. *War Med.*, Chicago, 1944, 5, 129-132.—The author gives a general review of the subject and reports a number of cases in soldiers. The most common symptoms are asthenopia and blepharospasm; amblyopia is relatively infrequent.—*M. E. Morse* (Baltimore, Md.).

2448. Moura, J. de. Parafrenias, paranoia e querelantes. (Paraphrenia, paranoia, and querulents.) *Arch. bras. Neurul. Psiquiat.*, 1942, Nos. 3-4.—[Abstracted review; original not seen.] From a consideration of 48 cases discussed in detail, it is concluded that paraphrenia and paranoia are both attenuated forms of schizophrenia. The querulents, because their condition requires an external factor, remain in a distinctive position; nevertheless it is clear that predispositions and familial models are present in such cases.—*H. D. Spoerl* (American International College).

2449. Murray, J. M. **Psychiatric aspects of aviation medicine.** *Psychiatry*, 1944, 7, 1-7.—The nature and the variety, as well as the importance and incidence, of psychiatric problems in aviation medicine are discussed, and the importance of adequately trained psychiatrists in the air force to function both in prevention and in the treatment of psychiatric disorders is emphasized.—M. H. Erickson (Eloise Hospital).

2450. Orton, S. T. **A theory of the neural mechanism of stuttering.** *Arch. Neurol. Psychiat., Chicago*, 1943, 50, 619-622.—Abstract and discussion.

2451. Palmer, H. D. **Involitional psychoses: melancholia.** *Publ. Hlth Rep., Wash.*, 1942, Suppl. No. 168, 118-124.—In order to understand the true origins of involitional melancholia, it is necessary to achieve a total psychobiological concept of the disorder. "The disease is the culmination of a lifelong pattern of rigidity and restriction, a reaction type in the psychobiological sense which bears characteristic stigmas from birth to death. The rigidity of the personality is the product of the unconscious mechanisms of control which the individual has built up in order to smother or strangulate his unconscious instinctive drives. Through gradual failure of the total resistance of the individual, the threat of inability to control any longer the hostile and aggressive instinctual forces gives rise to the agitation, anxiety and fear so characteristic of the illness."—J. E. Zerga (Avion, Inc.).

2452. Palmer, W. L. **An internist looks at psychiatry and psychoanalysis.** *Ment. Hyg., N. Y.*, 1944, 28, 77-90.—The chief reasons why physicians are skeptical of psychoanalysis are reviewed, and the functions of the general practitioner and the internist as psychotherapists are discussed.—W. L. Wilkins (U. S. Naval Reserve).

2453. Plant, J. S. **To-day's responsibilities in mental hygiene.** *Ment. Hyg., N. Y.*, 1944, 28, 10-14.—Professional emphasis on help to Selective Service and the outgrowths of living in a country at war have tended to lessen the value of the individual. Professional workers should help to stress the integrity of each individual.—W. L. Wilkins (U. S. Naval Reserve).

2454. Podolsky, E. **Stop worrying and get well.** New York: Bernard Ackerman, 1944. Pp. 124. \$2.00.—This book is a revised edition of the author's *Worry and disease*. Intended for the general reader, it affirms with argument and anecdote the psychogenic basis of many common diseases and prescribes for the sufferer a curative self-help program, the essence of which is contained in the title.—S. B. Williams (U. S. Naval Reserve).

2455. Porteus, S. D., & Kepner, R. D. **Mental changes after bilateral prefrontal lobotomy.** *Genet. Psychol. Monogr.*, 1944, 29, 3-115.—The authors present detailed histories for 20 prefrontal lobotomy cases. The histories include both pre- and post-operative data on behavior, intelligence, and adjustment. Results from a modified form of the Stanford-Binet and from the Porteus Maze Test are given. No consistent picture of general mental impairment arising from lobotomy was found. There was a tendency for lobotomized patients to approach equalization at a mediocre level of performance.

Their inability to divide or alternate attention successfully between two activities was brought out by the Maze Test. The theoretical and therapeutic aspects of these and other findings are discussed.—L. Long (College of the City of New York).

2456. Prout, C. T. **Psychiatric reactions to the war as seen in civilians and soldiers referred to a mental hospital.** *J. nerv. ment. Dis.*, 1944, 99, 389-396.—The author analyzes 41 male patients whose psychotic episodes seemed precipitated by situations related to the war. Soldiers and civilians are about equally represented. The analysis is in terms of the precipitating situation, the nature of the disorder, the outcome of treatment, and the frequency of possible predisposing hereditary factors in the patients.—L. B. Heathers (Smith).

2457. Pullias, E. V. **Conscience, guilt, and atonement as problems in modern life.** *Ment. Hyg., N. Y.*, 1944, 28, 91-101.—Civilized living demands control or restraint of behavior. If internal controls are exacting, they will be violated; controls violated produce a sense of guilt; and a sense of guilt unrelieved disintegrates the personality. Different directions of action for the individual personality in this case are reviewed, and the functions of religion for the individual and for the culture summarized.—W. L. Wilkins (U. S. Naval Reserve).

2458. Ruesch, J. **The diagnostic value of disturbances of consciousness.** *Dis. nerv. Syst.*, 1944, 5, 69-83.—From the experience gained in the clinical examination of 49 cases and the post-mortem examination of 286 cases exhibiting disturbances of consciousness, 18 clinical criteria were selected for use in determining responsiveness of patients. These may be divided into 4 graded and distinct groups: higher intellectual functions, orientation, voluntary reflexes, and tendon and eye reflexes. "A uniformity of symptomatology and a rather typical sequence in number and character of signs involved in progressive disturbances of consciousness could be demonstrated, regardless of the disease studied." A more objective definition of consciousness is suggested, being based on the number and type of signs observed. Cerebral lesions must be expected when prolonged or repeated disturbances of consciousness occur.—C. E. Henry (U. S. Naval Reserve).

2459. Schneck, J. M. **The problem of sterilization of the mentally unfit.** *Med. Rec., N. Y.*, 1944, 157, 223-227.—A systematic discussion is offered of the problems involved in the sterilization of the mentally unfit, and of historical, legal, statistical, and sociological considerations.—M. H. Erickson (Eloise Hospital).

2460. Sharp, A. A. [Ed.] **A dynamic era of court psychiatry, 1914-1944.** Chicago: Psychiatric Institute, Municipal Court of Chicago, 1944. Pp. 149.—These 28 papers, by A. A. Sharp, D. B. Rotman, E. Allgaier, C. C. Bowie, G. Munson, and others, commemorate the 30th anniversary of the Psychiatric Institute and record its history, philosophy, experience, and research. The papers deal with problems of the mentally ill, juvenile delinquency, psychopathic personality, amnesia, clinical psychology, mental defect, automobile driver problems, psychiatric social service, education, and other related topics.—G. S. Speer (Central YMCA College).

2461. Shorr, E., & others. Problems of mental adjustment at the climacteric. *Publ. Hlth Rep.*, Wash., 1942, Suppl. No. 168, 125-137.—This is a clinical report of the psychological and physiological disorders of the menopausal period based on observations on several hundred patients in a general hospital. The report covers the following clinical syndromes: vasomotor crises, gastrointestinal disturbances, psychosexual disturbances, emotional disturbances, sensory-motor phenomena, previous instability, and physiological factors.—J. E. Zerga (Avion Inc.).
2462. Smith, H. C., & Cobb, S. Relation of emotions to injury and disease: a call for forensic psychosomatic medicine. *Ann. intern. Med.*, 1943, 19, 873-908.—The purpose of this paper is to put forward a rationale of nervous shock and the principles of appraising legal claims for injury due to it. No claims for damages were made until the late 19th century, and there is still a lack of scientific criteria for assessing the validity of such claims, which, however, psychosomatic medicine is supplying. The chief stimulus in nervous shock is fright, and the mechanism of its action is described. For reasons of social policy, excessively vulnerable persons should not be granted more legal protection against negligence than persons of average constitution receive. As emotional stimuli may be mere trigger mechanisms to cause the appearance of pre-existing disorder, careful apportionment of final injury between accident and pre-existing impairment is required. With scientific advance, "physical impact" with a "physical object" becomes meaningless (e.g., blast injury), as also the distinction between "organic" and "functional." The special need is for studying the stimulus and its adequacy to produce a response in a person of average constitution.—M. E. Morse (Baltimore, Md.).
2463. Stainbrook, E., & Löwenbach, H. Writing and drawing of psychotic individuals after electrically induced convulsions. *J. nerv. ment. Dis.*, 1944, 99, 382-388.—Patients were asked to write their names and to copy simple Gestalt figures at varying intervals after electroshock treatment. The changing characteristics of the name writing and the figure drawing are described and discussed.—L. B. Heathers (Smith).
2464. Stevenson, G. S. Review of the year; a report on the National Committee's work in 1943. *Ment. Hyg.*, N. Y., 1944, 28, 1-9.—Major areas of endeavor of the National Committee for Mental Hygiene were assistance in the problems of selection for the armed forces and of mental hygiene within the services; consideration of the problems centering around mental hygiene, demobilization, rehabilitation, and other difficulties of the postwar world; the problem of teaching mental hygiene in schools—to be launched is an experiment in kindergarten mental hygiene education; and research on dementia praecox.—W. L. Wilkins (U. S. Naval Reserve).
2465. Strecker, E. A. Fundamentals of psychiatry. (2nd ed.) Philadelphia: Lippincott, 1944. Pp. xviii + 219. \$3.00.—This volume gives a compact survey of the field and includes a chapter each on the following topics: the psychiatry of the war, war neuroses, and the nurse and the psychiatric patient. (See 17: 582.)—W. S. Hunter (Brown).
2466. Symonds, C. P. Anxiety neurosis in combatants. *Lancet*, 1943, 245, 785-789.—The author reviews the arguments for and against two hypotheses as to the genesis of anxiety neurosis in flying personnel and troops under battle stress. The first theory supposes "that there is a conflict between fear and other emotions, of which the sufferer is generally unconscious and that the affective disturbance results from frustrated instinctive desire." The other theory is "that overstimulation of the fear mechanism can result in a persistent and morbid state of fear. . . . It is suggested that the anxiety neurosis of war includes two kinds of affective disorder. The dominant affect in one is fear and in the other a state of tension associated with emotional conflict. Either affective disorder may occur alone though generally they occur together. The distinction between anxiety neurosis and normal affective reaction is discussed in relation to flying and combatant duties. It is concluded that this distinction is relative and subject to variation."—C. K. Trueblood (Cambridge, Mass.).
2467. Tooth, G. Nervous breakdown in the navy; domestic difficulties as a causal factor. *Brit. med. J.*, 1944, 1, 358-360.—The percentage of men invalidated as psychiatric casualties is higher for those with domestic difficulties than for those whose condition can be traced either to enemy action or to conditions of service. The most disturbing domestic difficulty is real or suspected infidelity of the wife or fiancée. Other disturbing troubles are illness or death of near relatives, including the prospect of childbirth, with financial stress apparently giving little trouble. The appointment to naval depots of a psychiatric social worker might aid in reducing the incidence of psychiatric invalidism from this cause.—E. Verville (Wisconsin).
2468. Torrie, A. Psychosomatic casualties in the Middle East. *Lancet*, 1944, 246, 139-143.—The author gives a brief outline of 2,500 psychosomatic casualties in the Middle East during 1942, and a more detailed description of 1,000 cases of anxiety neurosis and hysteria. "Of these a quarter had had prewar neurosis; 89.9% were returned to duty; and 5.4% were invalidated. Average stay in hospital was 18.1 days. . . . The needs are stressed for the nurse with psychological understanding, the speedy removal of untreatable cases, the staging of a suitable ward environment coupled with a rapid reconditioning, and the full time employment of all patients who are up. Hospitals in peacetime might adapt a considerable number of neurotic patients to employment by similar methods."—C. K. Trueblood (Cambridge, Mass.).
2469. Wallin, J. E. W. Mongolism among school children. *Amer. J. Orthopsychiat.*, 1944, 14, 104-113.—On the basis of two studies of mongolism, 23 and 26 cases, the author concludes that the theory that mongols are the last-born in large families of children of older parents is not substantiated. Mongolism seems to be due to an arrest or perversion of fetal development, the causes of which are as yet imperfectly understood.—R. E. Perl (New York City).
2470. Williams, T. A. Adequate treatment of psychoneuroses. *Med. Rec.*, N. Y., 1944, 157, 221-223.

—The problems of psychotherapy, the role of conditioning in neurotic conflict, and its usefulness in psychotherapy are discussed, and a case of a lifelong phobia cured by hypnotic psychotherapy is cited.—*M. H. Erickson* (Eloise Hospital).

2471. Wittenberg, R. Psychiatric concepts in group work, applied through the media of drama and music. *Amer. J. Orthopsychiat.*, 1944, 14, 76-84.—The article discusses the experiences of a psychiatric social worker who served as a music and drama teacher in a settlement house. The media chosen were always incidental to his main objective—the use of relationship as prophylactic and therapeutic method. His experiences with one club of 13- and 14-year-old boys are presented in some detail.—*R. E. Perl* (New York City).

2472. Young, I. S., & Schuyler, D. Psychiatric social work in this war. *Dis. nerv. Syst.*, 1944, 5, 118-121.—This article deals with the types of situations in which psychiatric social workers, usually in collaboration with psychiatrists and the Red Cross, are making definite contributions to the health and happiness of the man in service. Through the Red Cross, a connecting link is maintained with the world recently left by the recruit. This forms an invaluable contact for securing accurate social histories as they may be needed by the military psychiatrist, and also serves to help cushion the discharged man's shock and embarrassment at returning home via a disability discharge. This skilled professional help is also being utilized to some extent on the neuropsychiatric wards.—*C. E. Henry* (U. S. Naval Reserve).

[See also abstracts 2360, 2361, 2362, 2393, 2399, 2405, 2517, 2527, 2547, 2553, 2554, 2566, 2592, 2618, 2629, 2635, 2638, 2639, 2642, 2647.]

PERSONALITY AND CHARACTER

2473. Frank, J. D. Experimental studies of personal pressure and resistance: I. Experimental production of resistance. *J. gen. Psychol.*, 1944, 30, 23-41.—Two preliminary experiments indicated that "an individual volunteering to take part in an experiment makes an implied contract which strongly inhibits resistance to any activity required by the experimenter." In order to create resistance and to explore one of the conditions determining its strength, three groups of students were required to eat 12 soda crackers under the following conditions: Group I were told that the experiment required the eating of 12 crackers, Group II were told that the experiment did not require it but that the experimenter would try to make them eat the crackers, while Group III were given the same instructions as Group II but only after they had started eating the second cracker. Results suggest the tentative conclusions that: (1) resistance to an activity is strongly inhibited if it appears to be implied by a previous agreement, (2) resistance to an activity is readily aroused if doing it involves submitting to another's arbitrary personal demand, and (3) a challenge to resist coupled with personal pressure to continue is more likely to be resisted if it is delivered before rather than after the activity has begun.—*H. H. Nowlis* (Connecticut).

2474. Frank, J. D. Experimental studies of personal pressure and resistance: II. Methods of over-

coming resistance. *J. gen. Psychol.*, 1944, 30, 43-56.—The cracker-eating situation used in a previous study (see 18: 2473) is further used to investigate methods of overcoming resistance to the experimental task by varying degrees of direct pressure or by attempting to change the meaning of the situation in such a way that the subject could comply without loss of self-respect. "A scale of direct personal pressure in an eating situation is described in which each degree represents an increment of force. Each degree may lead to eating after the one below it failed, but a degree only exceptionally causes eating after a higher degree has failed." Persuasion to accept the experimenter's goal is more effective in overcoming resistance than is force. Methods of overcoming resistance through persuasion include: getting the subject to consent to an activity relatively remote from the resisted activity and gradually bringing him to it by small steps, making the activity a means of escape from an unpleasant situation, and creating circumstances in which the subject can comply without loss of self-respect.—*H. H. Nowlis* (Connecticut).

2475. Frank, J. D. Experimental studies of personal pressure and resistance: III. Qualitative analysis of resistant behavior. *J. gen. Psychol.*, 1944, 30, 57-64.—Resistant behavior observed in two previous experiments involving eating crackers (see 18: 2473, 2474) is analyzed. "Typical patterns of resistance are described, the main types of resistant behavior are classified, and a scale of resistance presented. In the course of an experimental session, rises in resistance came to occur within rather than between natural eating units, and resistance became generalized to include activities unrelated to eating. These changes are attributed primarily to the tendency for the field to become restructured in the sense of a strong need."—*H. H. Nowlis* (Connecticut).

2476. Harrower-Erickson, M. R. Personality testing in penal institutions. *Probation*, 1943, 22, 1-6.—Modification of the Rorschach test for group use is described. Two groups of prisoners from Sing Sing were tested by this group method and the reports analyzed. It is found that the method is suitable for group testing, even with persons as low as 70 IQ. No typical criminal personality was found, nor a typical personality for any specific crime. The majority of the prisoners displayed deviation from the normal, but of a variety of forms. The group of sex offenders displayed the most disturbed personalities.—*G. S. Speer* (Central YMCA College).

2477. Roberts, K. E., & Fleming, V. V. Persistence and change in personality patterns. *Monogr. Soc. Res. Child Develpm.*, 1943, 8, No. 3. Pp. viii + 206.—In this research project, undertaken in connection with the Advisory Service for College Women at the Merrill-Palmer School, the persistence and fluctuation of traits and attitudes were studied in the cases of 25 clients on whom abundant data were available. Popularized résumés of three representative cases are presented. The investigators recorded on check lists the presence and nature of 229 traits and 523 attitudes as shown in life histories at the pre-college, college, and postcollege levels, and trait questionnaires regarding these periods were filled out by the clients themselves. Comparisons were made

between groups with happy vs. unhappy childhoods, and happy vs. unhappy marriages, and also between groups showing high vs. low degrees of dominance, of religious values, and of social adjustment. The ratio of persisting to fluctuating traits was found to be close to 3 : 2. The authors suggest that this shows, not that personality cannot be modified, but that in some cases too little effort is made to do so.—E. B. Mallory (Wellesley).

[See also abstracts 2482, 2493, 2494, 2503, 2558, 2567, 2579, 2580, 2624, 2634, 2636, 2637, 2641, 2644.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

2478. Bacon, S. D. Sociology and the problems of alcohol: foundations for a sociologic study of drinking behavior. *Mem. Sect. Alcohol Stud. Yale Univ.*, 1944, No. 1. Pp. 53.—See 18: 1762.—W. L. Wilkins (U. S. Naval Reserve).

2479. Baumgarten, F. Beratung in Lebenskonflikten. (Counseling on conflict problems.) Zurich: Rascher, 1943. Pp. 131. Fr. 6.50.—[Abstracted review; original not seen.] This is a description of 15 examples of conflicts arising in marriage or other social relations. Some of these people were referred to psychiatrists, but success in overcoming the conflict was obtained in the other cases by open discussion of the problem and by increasing the knowledge of the self and of mankind generally.—G. S. Speer (Central YMCA College).

2480. Blum, M., & Candee, B. Family behavior, attitudes and possessions. *Res. Stud. John B. Pierce Found.*, 1944, No. 5. Pp. 209.—This volume, one of the series entitled *Family living as the basis for dwelling design*, presents data collected in a field research program in two communities. It deals specifically with the biological functions of sleeping, washing, dressing, and elimination. Ninety tables present the data; photographs and diagrams illustrate the material.—L. H. McCabe (Cambridge, Mass.).

2481. Bodmer, F. [Hogben, L., Ed.] The loom of language. New York: Norton, 1944. Pp. x + 692. \$3.75.—On the basis of the evolution and comparative structure of living and dead languages, the author makes recommendations (1) for reducing the labor of language study and (2) for planning an auxiliary world language immune from the diseases of accidence and syntax that infect natural systems. The nature of the essential minimum in vocabulary and grammar for practical purposes is discussed, and in 2 appendices minimum vocabularies for 4 Teutonic and 4 Romance languages are provided. Initial emphasis in learning should be primarily upon pronouns, particles, pointer words, helper verbs, significant flexional derivatives, peculiarities of word order, and idiomatic usage. The difficulty of learning highly inflected languages and the steady trend toward simplification of existing tongues suggest the ideal form for an artificial language aiming to promote international goodwill and scientific interchange. It must be grammatically simple (isolating rather than flexional), exact, regular. Its vocabulary must have word economy and international appeal. Volapük,

Esperanto, Basic, and other systems are described and appraised on these desiderata. Basic has the merit of relative catholicity but would tend to create an Anglo-American *Herrenvolk*. Interglossa, proposed by the author and editor, would consist of less than a thousand words derived mainly from Greek and Latin roots which current science has made internationally familiar. Appendix 3 lists Greek words thus identifiable.—M. Sheehan (Hunter).

2482. Bonney, M. E. The constancy of sociometric scores and their relationship to teacher judgments of social success, and to personality self-ratings. *Sociometry*, 1943, 6, 409-424.—Several measurements were obtained on children in the 2nd, 3rd, 4th, and 5th grades of 3 schools in Texas. On the basis of several sociometric choice situations, scores for each child were calculated for general social acceptance and mutual friendships. These scores showed some constancy from year to year, the former being nearly as constant as scores for intelligence and academic achievement. Implications of these findings are discussed. Teacher judgments of pupil popularity were obtained and were compared with sociometric scores of pupils; "approximately 90% of the children were placed by the teachers, either in the same quintile, or only one removed from that in which they were placed by pupil choices." Self-ratings on the California Test of Personality were obtained for 4th-grade pupils. The correlation between total scores for self-ratings and total sociometric score was found to be .49.—G. R. Thornton (Purdue).

2483. Bossard, J. H. S. Family problems in wartime. *Psychiatry*, 1944, 7, 65-72.—Wartime marriages as a problem in themselves are discussed briefly. The author then raises the question of the effects of family separation contingent upon war, and the effects of the widely divergent experiences of the marital partners, especially the effects of the husband's traumatic war experiences, upon postwar marital relationships. The question is raised of what social and psychiatric measures can be taken to meet the psychological and sociological problems involved.—M. H. Erickson (Eloise Hospital).

2484. Bruner, J. S. Public opinion and America's foreign policy. *Amer. sociol. Rev.*, 1944, 9, 50-56.—The present orientation in the United States toward issues of foreign policy is analyzed on the basis of poll returns. Four main topics are treated: "(1) the bases of American opinion on foreign affairs, (2) the growth of internationalism in popular thinking, (3) the public's conception of the mechanics of collective, international action, and (4) the dual problem of dominance and sovereignty."—S. E. Asch (Brooklyn).

2485. Callender, J. H. Introduction to studies of family living. *Res. Stud. John B. Pierce Found.*, 1943, No. 4. Pp. 22.—This is the first volume in a series entitled *Family living as the basis for dwelling design*. For a decade the Pierce Foundation conducted research seeking to reduce the cost of housing. With the approach to this goal in 1940, emphasis was shifted from lowered cost to improved quality, i.e., the building of houses "better suited for the activities of family life that will take place in the house." Present methods of designing, trends, Reimer's

Stockholm study, history of present study, analysis of functions and program of research, field studies, space and motion studies, and current work and plans for the future are discussed. The appendix presents the analysis of functions (under the main headings of space required, possessions, equipment, environment, time, and relationship to other functions) and a bibliography.—*L. H. McCabe* (Cambridge, Mass.).

2486. Carroll, J. B. The analysis of verbal behavior. *Psychol. Rev.*, 1944, 51, 102-119.—A theory of linguistic behavior is presented. An integration with psychological theory, with justice to the complexities of linguistic structure, is attempted. Fundamentally, speech behavior is a series of movements in which certain uniformities can be found. Some of these uniformities are linguistic norms; others of a more psychological nature are related to conditions under which speech responses occur. The linguistic response-type is defined as any uniformity in speech behavior which exhibits a certain behavioral structure. This common behavioral structure is characterized in some detail. Employing the qualifications listed, one can separate linguistic from nonlinguistic behavior. The former includes all speech behavior as well as many nonvocal gestures. Psychological properties of linguistic response-types are to be studied in terms of their strength. Thus verbal behavior "is seen as a series of movements patterned in overlapping units. The uniformities underlying these movements exist as behavioral habits, or response-types, the strengths of which are subject to continual change."—*M. A. Tinker* (Minnesota).

2487. Chapin, F. S. Some psychological cross-currents that may effect peace plans. *Amer. sociol. Rev.*, 1944, 9, 21-27.—The let-down from a war psychology, in which individual interests are subordinated to common aims, and disillusionment consequent upon failure to return to normal conditions may render difficult the postwar period.—*S. E. Asch* (Brooklyn).

2488. Criswell, J. H. Sociometric methods of measuring group preferences. *Sociometry*, 1943, 6, 398-408.—This paper discusses the application of mathematical techniques to the expression of degrees of in-group and out-group preferences. A "double-ratio method of measuring preference" is presented. Formulae are given for calculating the ratios of in-group and out-group choices expected by chance. Ratios are then calculated for obtained in-group and out-group choices. A self-preference index is obtained by dividing obtained ratio of in-group choices by expected ratio. A similar index is calculated for preference of out-group. Statistical significance of an index is determined by the chi-square method. The author's procedure is contrasted with that of M. Smith who calculated his index on the basis of in-group choices alone, and with that of C. P. Loomis whose formulae allow the actual preferences for in-group and out-group to influence the expected ratios. Comments are made concerning the appropriate use of ratio methods.—*G. R. Thornton* (Purdue).

2489. Eggan, D. Hopi marriage and family relations. *Marriage & Family Living*, 1944, 6, 1-2; 6.—Traditionally Hopi marriage "was a contract between two families, laborious to get into and easy to get out of, and it supposedly had little to do with

emotions." The husband lived in the wife's household, but there was a strong disposition for marital partners to retain old loyalties and affections rather than to become emotionally dependent upon the new relationship. The children belonged to the mother. In spite of this traditional type of relationship, the author found evidence from personality materials of "affects quite similar to those in Western culture's romantic marriage. . . . In fact the more closely we examine a wide variety of family patterns the clearer it would appear that . . . the emotions involved in marital adjustment cannot be . . . successfully channeled by rules or by 'education.' The recognition and dissemination of this fact is perhaps one of the greatest contributions to the solution of marriage problems which can be made by those of us who believe that in spite of its weaknesses, the permanent primary family is the most satisfactory foundation unit upon which modern society can be built."—*L. H. McCabe* (Cambridge, Mass.).

2490. Eysenck, H. J. An experimental analysis of five tests of "appreciation of humor." *Educ. psychol. Measmt.*, 1943, 3, 191-214.—Items listed as jokes, pictures, limericks, verses, and comparisons to be ranked in order of funniness were given to 50 male and 50 female subjects. Each person's rankings were correlated with the average ranking. Intercorrelations of items were utilized to determine factors. Major conclusions reached were: (1) there was as much variation in opinion on the funniness of items in one test as in any other test; (2) no sex differences were found in the number of items liked or of preferences, although men claimed to know twice as many items; (3) known items tended to be better liked; and (4) factor analysis was in line with the author's theory of cognitive, conative, and affective reaction tendencies in relation to humor. Bibliography of 39 titles.—*L. S. Kogan* (Rochester).

2491. Groves, E. R. *The American woman; the feminine side of a masculine civilization.* (2nd ed.) New York: Emerson Books, 1944. Pp. vii + 465. \$3.50.—This book traces woman's advance in status in a setting of masculine dominance. Twelve chapters outline "the general movement that brought the average woman closer to the privileges and resources of men," from colonial days to the present war. The changing participation by women in political, social, industrial, and educational activities is reflected both in the history of formal institutions and in the personal accounts of representative women.—*F. W. Finger* (Virginia).

2492. Hall, H. [Ed.] Public opinion polls. *Publ. Opin. Quart.*, 1944, 8, 124-161.—A compilation, topically arranged, is presented of poll results released by the American Institute of Public Opinion, British Institute of Public Opinion, Canadian Institute of Public Opinion, Australian Public Opinion Poll, National Opinion Research Center, Office of Public Opinion Research, and by *Fortune*, covering the period from December, 1943, through February, 1944.—*H. F. Rothe* (Stevenson, Jordan & Harrison, Inc.).

2493. Harding, L. W. A value-type generalizations test. *J. soc. Psychol.*, 1944, 19, 53-79.—This describes an attempt to develop a statistically sound test, the purpose of which is to secure information

concerning types of values or personal philosophies as they are manifested in generalized attitudes.—*F. W. Finger* (Virginia).

2494. Harding L. W. The value-type problemnaire. *J. soc. Psychol.*, 1944, 19, 115-144.—"The test described here was designed to secure evidence of the existence, comparative strength, and interrelationships of value-concepts, or personal philosophies, in selected ideological areas, as these values are manifested by reactions to certain selected problems."—*F. W. Finger* (Virginia).

2495. Kainz, F. *Psychologie der Sprache. II.* (Psychology of language. II.) Stuttgart: Enke, 1943.

2496. King, M. B., Jr. Reliability of the idea-centered question in interview schedules. *Amer. sociol. Rev.*, 1944, 9, 57-64.—The opinions of a cross section of a rural county concerning the administration of public relief were investigated. A free method of wording questions was employed while attempting to state clearly the ideas and issues involved. Tests of reliability, based on the returns of two interviewers, proved satisfactory. The total of the individual's responses was taken as the unit of analysis. It was possible to classify the data into qualitative categories and to analyze these by simple statistical methods.—*S. E. Asch* (Brooklyn).

2497. Kiser, C. V., & Whelpton, P. K. Social and psychological factors affecting fertility; variations in the size of completed families of 6,551 native-white couples in Indianapolis. *Milbank mem. Fd Quart.*, 1944, 22, 72-105.—This continuation of the previous study (see 17: 4220) deals with the distribution of wives, 40-44 years of age, by number of children born and proportions of childless couples. Of the wives, 18.8% were childless; 46.8% had 1 or 2 children; 15%, 3 children; and 20%, 4 or more. The proportion of childless is 14.8% for Catholic, 18.8% for Protestant, and 25.6% for mixed marriages. The proportions of couples with 5 or more children are 17.1% for Catholic and 11% for Protestant and mixed marriages. At each rental and educational level, Catholic couples exceed Protestant with respect to proportion with 5 or more children, and fall below with respect to proportion childless. The both-South Protestant couples have the lowest proportion of childlessness and the highest proportion of 5 or more children (exceeding the Catholics). The both-North Protestants show the reverse.—*M. E. Morse* (Baltimore, Md.).

2498. Klineberg, O. A science of national character. *J. soc. Psychol.*, 1944, 19, 147-162.—The retiring chairman of the Society for the Psychological Study of Social Issues indicates the type of approach that may ultimately lead to the emergence of a science of national character.—*F. W. Finger* (Virginia).

2499. Levi, A. W. Social beliefs of college students. *J. higher Educ.*, 1944, 15, 127-134.—A report is presented of a project in the field of social studies set up by the Cooperative Study in General Education of the American Council on Education. The Inventory of Beliefs about Postwar Reconstruction, which consists of 150 statements drawn from the principles and facts of the social sciences and their application to the question of public policy, was employed. Responses were obtained from 2,206 college

students between April and August, 1943; a very large majority of the students were in colleges and universities of the Middle West. The results indicate an acceptance of the international point of view; they are favorable to the farmer and the small business man but somewhat unfavorable toward labor. Many inconsistencies are found in the students' beliefs. Portions of the inventory are given, along with the results obtained for the questions in those portions.—*M. Murphy* (Pennsylvania).

2500. Masserman, J. H. The dynamic psychology of war-time communications and morale. *Dis. nerv. Syst.*, 1944, 5, 101-111.—This detailed outline of the relationships between wartime communications and morale reviews the psychodynamics of individual and group behavior, examines the techniques of interpersonal and intergroup communications, and attempts to derive a practical procedure for appeal and propaganda purposes. It deals with the problems of motivation and incentive and with the influence of symbols and leaders. Special consideration is given to factors that may modify an individual's response to communications, such as environmental background and group motivations. The techniques and purposes of enemy propaganda are analyzed, and specific suggestions are made for counteracting such material.—*C. E. Henry* (U. S. Naval Reserve).

2501. Patrick, C. Attitudes about women executives in government positions. *J. soc. Psychol.*, 1944, 19, 3-34.—Questionnaires were completed by 120 women executives, 104 nonprofessional women, and 33 male executives concerning the individual's own habits of life and his conception of the typical female executive. The majority of female executives assert that their career has not interfered with their matrimonial life. The nonprofessional women do not agree fully with this proposition, and the men emphatically disagree. On many items, however, the 3 groups correspond closely; e.g., all agree that prejudice against women is the greatest handicap to success. In general, "a marked discrepancy exists between the stereotyped opinion of the woman executive (which is even held by woman office-holders themselves) and the personal characteristics manifested by this group."—*F. W. Finger* (Virginia).

2502. Pierson, D. The Brazilian racial situation. *Sci. Mon., N. Y.*, 1944, 58, 227-232.—A comparative analysis is made of the social and racial problems in Brazil and in the United States. Reasons are offered to show the basis for the less accentuation of racial problems in the former country.—*E. Girden* (Brooklyn).

2503. Reynolds, F. J. Factors of leadership among seniors of Central High School, Tulsa, Oklahoma. *J. educ. Res.*, 1944, 37, 356-361.—Of 888 seniors graduating from this school in May, 1940, 437 were designated as leaders and 451 as nonleaders. Leadership participation scores were determined on the basis of such activities as participation in assembly programs, radio broadcasting, play productions, and publications; captaincy of athletic teams; and offices in organizations or clubs. Among the leaders, leadership participation scores correlated .27 with school achievement, .22 with intelligence, .31 with personality rating, .35 with all-round promise rating, negligibly with height. Leaders as a group were

superior to nonleaders in achievement, intelligence, and personality rating. Nevertheless, the substantial proportion of nonleaders who ranked high on these traits presents a challenge to school administrators.—*M. Murphy* (Pennsylvania).

2504. Scheler, M. *Esencia y formas de la simpatia.* (The essence and forms of sympathy.) Buenos Aires: Editorial Losada, 1942.—[Abstracted review; original not seen.] Traditional empirical psychology is inadequate for achieving understanding of persons because its logical object of study is essentially fictitious. The metaphysical basis of community must be the starting point for a correct interpretation of self and selves. Although always perceived in some concrete individuality, *self in general* is an ultimate metaphysical basis of human existence. The valuational approach not only supplements other approaches but is necessarily prior to them.—*H. D. Spoerl* (American International College).

2505. Seward, G. H. *Sex roles in postwar planning.* *J. soc. Psychol.*, 1944, 19, 163-185.—This is a review of the scientific evidence concerning the biological differentiation of male and female and the cultural determination of "masculine" and "feminine." 73 references.—*F. W. Finger* (Virginia).

2506. Smith, M. *Social interaction and collective behavior.* *Psychol. Rev.*, 1944, 51, 127-135.—The worth-whileness of the distinctions between social interaction and collective behavior is discussed. After considering various views, four basic questions are raised and answered. (1) It seems best to define collective behavior on an immediate basis but so that it may be related to other forms of action. Furthermore, collective behavior should not be made synonymous with organized group behavior. (2) Collective behavior is not necessarily face-to-face. (3) Collective behavior is not synonymous with social interaction. (4) Interstimulation and interresponse (interaction) precede collective behavior. Collective behavior is then tentatively defined as "behavior of a plural number of individuals who are influenced by each other and participate in action involving their collective relationship." This is then elaborated to include impulse, perception, manipulation, and attainment.—*M. A. Tinker* (Minnesota).

2507. Smith, T. L. *The locality group structure of Brazil.* *Amer. sociol. Rev.*, 1944, 9, 41-49.—Similarities and differences between locality groups in Brazil and the United States are discussed.—*S. E. Asch* (Brooklyn).

2508. Stratton, G. M. *Violence between nations; deeper sources; the way of liberation.* *Psychol. Rev.*, 1944, 51, 85-101.—Current explanations of international violence are in general unsatisfactory. Seven sample explanations are listed. None fulfills the requirements for scientific acceptance as in fact the cause of war, i.e., "some dynamic fact that comes and goes or whose force increases and decreases in regular connection with the presence and absence of war itself." Perhaps nothing causes war generally, but each war is of unique origin. To avoid generalization based on a too narrow field of fact, it is probably better to study war and peace together rather than war alone. A contrast is drawn between the region of frequent violence and the region of infrequent vio-

lence. Communal ties are weaker in the former regions. These weaker psychic ties "go hand in hand with readiness for physical conflict." Since the communal ties are stronger in peaceful regions, these social ties are not only restraints to conflict but give goal and pattern to action. The international policy implied in the present explanation of violence between nations is outlined.—*M. A. Tinker* (Minnesota).

2509. Taylor, C. H. *The construction and validation of certain experimental measures of musical potentiality.* *Abstr. grad. Thes. Educ. Univ. Cincinnati*, 1944, 4, 97-116.—Abstract.

2510. Taylor, E. M. *A study in the prognosis of musical talent.* *Abstr. grad. Thes. Educ. Univ. Cincinnati*, 1944, 4, 117-135.—Abstract. (See 16: 1102.)

2511. Timmons, W. M. *Some outcomes of participation in dramatics: II. Likeability and co-operativeness; relationships between outcomes.* *J. soc. Psychol.*, 1944, 19, 35-51.—After one week of acquaintance with a play and again after 10 more weeks of rehearsals and performance, 54 students of acting rated their liking for the play, their liking for each other, and their estimates of their fellows' co-operativeness. A comparison of scores at the beginning and the end showed that the subjects on the average liked the play significantly less well, liked one another significantly more, and made a small but not significant improvement in co-operativeness.—*F. W. Finger* (Virginia).

[See also abstracts 2372, 2414, 2415, 2417, 2420, 2436, 2440, 2441, 2456, 2513, 2515, 2519, 2538, 2548, 2550, 2554, 2558, 2593, 2598, 2621, 2623, 2643, 2648.]

CRIME AND DELINQUENCY

2512. Agatston, H. *Ocular malingering.* *Arch. Ophthal.*, Chicago, 1944, 31, 223-231.—Ocular malingering may be classified as positive (including simulation, false attribution, and exaggeration of a defect), or negative (denial or dissimulation of an existent disease or defect). Errors of refraction, amblyopia, organic disease, and defects in color vision may be simulated. Various tests for all these situations are described. Clues from the subject's attitude and his response to prolonged examination are also recognized as important.—*M. R. Stoll* (American Optical Co.).

2513. Carson, N. B. *The delinquent girl as a wartime problem.* *Penn. Hlth.*, 1944, 5, 4-14.—A police-woman describes the measures being used in Philadelphia to decrease girl delinquency. An unofficial curfew is quite successful. A "date club," under the almost invisible supervision of policewomen, to which servicemen bring girls of their own choosing has provided recreation for about 2,500 young people each night.—*M. E. Morse* (Baltimore, Md.).

2514. G., W. O. *A policeman goes to the pictures.* *Police J., Lond.*, 1944, 17, 59-66.—The effect of motion pictures on juvenile delinquency is discussed. The fact that the film ends on a moral note is inconsequential, as the adolescent boy or girl may be impressed by a dramatic incident and fail to note the conclusion. Sexual behavior, types of crime, and

other delinquencies are shown to be related to the behavior exhibited in the films and frequently are the result of stimulation received from the film. Further research in this problem is urged, and the co-operation of the police is offered.—*G. S. Speer* (Central YMCA College).

2515. James, L. *War and crime: a lesson in determinism.* *Police J., Lond.*, 1943, 16, 304-312.—Crime is the result of the mental predisposition of the criminal and the external actuating agency. The mental predisposition is due to physical necessity, moral instability, and emotional instability. These latter factors are due to hereditary and environmental forces. As these forces have determined character by the age of 16, most adults are not morally changed even by extreme environmental forces. The child and the adolescent are seriously affected, and their character determined, even by less extreme environmental forces. Thus the present marked rise in juvenile delinquency rates, which results from wartime social deterioration, foretells a future rise in adult crimes.—*G. S. Speer* (Central YMCA College).

2516. López-Rey y Arroyo, M. *Criminalística: ensayo de sistematización.* (Criminalistics; attempt at systematization.) *Criminalia, Méx.*, 1944, 10, 356-384.—Criminalistics is presented as an auxiliary discipline to penal law, concerned with the scientific discovery and verification of crime and criminal. Criminology is differentiated as a narrower approach preoccupied with causal explanation. The principal psychological aspect has to do with the personality of the delinquent. Criminalistics transcends in scope and findings the positivism of classical criminology.—*H. D. Spoerl* (American International College).

2517. Lurie, L. A., Levy, S., & Rosenthal, F. M. *The defective delinquent; a definition and a prognosis.* *Amer. J. Orthopsychiat.*, 1944, 14, 95-104.—Fifty problem children, studied at the Child Guidance Home in Cincinnati and found to be defective delinquents, were analyzed from the standpoint of their physical constitutions, intellectual status, emotional development, personality traits, and their success or failure to make satisfactory adjustments to life situations. The results of this analysis were contrasted with similar findings for a group of 25 nondefective delinquents and a group of 25 nondelinquent defectives. The authors conclude that the defective delinquent constitutes a distinct clinical entity. The fundamental basis for this defective personality is the pathological constitutional endowment on which has been grafted pathologically conditioned traits and characteristics which render the individual unable to adjust to his environment. The prognosis is uniformly poor, and, at present, commitment for life to a custodial institution especially equipped to treat this type of child offers the only solution from the standpoint of society.—*R. E. Perl* (New York City).

2518. Moore, U., & Callahan, C. C. *Law and learning theory; a study in legal control.* New Haven: Yale Law Journal Co., 1943. Pp. vi + 136. \$1.00.—This book represents an attempt at studying human behavior as affected by legal enactments. Frequency and duration of parking in city streets is the behavior involved. Observations were made

under three main conditions: parking unrestricted by city ordinance; prohibited, but no police "tagging" for over-parking; and police enforcement of the prohibition by "tagging." Changes in parking behavior, the authors find, can be predicted by their empirical formulae. They have made only a beginning of an attempt to derive the formulae deductively from basic postulates. The attempt consists in a description of parking behavior associated with legal restrictions and in terms of the theory of behavior.—*R. H. Gault* (Northwestern).

2519. Wiers, P. *Economic factors in Michigan delinquency.* New York: Columbia University Press, 1944. Pp. x + 54. \$1.00.

[See also abstracts 2460, 2462, 2476, 2617, 2621.]

INDUSTRIAL AND PERSONNEL PROBLEMS

2520. Adams, W. M. *Prediction of scholastic success in colleges of law: I. The experimental edition of the Iowa Legal Aptitude Test.* *Educ. psychol. Measmt.*, 1943, 3, 291-305.—Following an inclusive summary of law aptitude tests previously used, a new battery containing subtests on analogies, mixed relations, opposites, memory, relevancy, reading comprehension, reasoning, and information is discussed which shows promising reliability and validity.—*L. S. Kogan* (Rochester).

2521. Bahn, C. A. *Ophthalmic requirements of the military services. Changes from Feb. 1, 1943, to Jan. 1, 1944.* *Arch. Ophthal., Chicago*, 1944, 31, 160-161.—*M. R. Stoll* (American Optical Co.).

2522. Barlow, F. A. *Proper placement of women in industry.* *J. Amer. med. Ass.*, 1944, 124, 687-691.—The Wright Aeronautical Corporation trains women in vocational schools to operate machines identical with those used in the plant. A follow-up over a 6-month period is best done by a female counselor. Women workers are more attentive to repetitive work than are men, but they are not so inventive.—*E. T. Verville* (Wisconsin).

2523. Barrett, W. G. *Psychologic armoring for the Air Forces.* *War Med., Chicago*, 1944, 5, 142-145.—No branch of the military services stands in greater need of foreknowledge of the psychology of warfare than do the air forces, and they also require a somewhat special, less adolescent morale than the armed forces in general. During training they are particularly receptive to ideas aiding self-preservation, and the problem becomes one of ordinary teaching. The chief subjects are: (1) the psychology of operations above the earth's surface, i.e., ultimate conquest of the physical world vs. the instinctive fear of falling (plus the instinctive fear of noise); (2) combat flying, essentially the psychology of fear; and (3) shaping attitudes to meet these phenomena, involving breaking down of inhibitions against recognition of fear, full realization of occupational hazards, verbalization of conflicts, extension of awareness of emotional elements, and an objective approach to inner experiences.—*M. E. Morse* (Baltimore, Md.).

2524. Beckley, D. K. *Constructing achievement tests in retailing.* *J. Bus. Educ.*, 1944, 19, 13-14.—See *Educ. Abstr.* 9: 439.

2525. Bell, H. M., & Altus, W. D. *The work of psychologists in the Ninth Service Command Special*

Training Center. *Psychol. Bull.*, 1944, 41, 187-191.—The Special Training Center is responsible for teaching illiterate, non-English speaking, and slow-learning enlisted men. The selection and training program is described, and the work of the psychologist is analyzed under the following headings: personnel, group testing, individual testing, interviewing, reporting personnel data, improving instruction, and statistical studies.—S. Ross (U. S. Naval Reserve).

2526. Bolanovich, D. J., & Kirkpatrick, F. H. **Measurement and the selection of salesmen.** *Educ. psychol. Measmt.*, 1943, 3, 333-339.—The most effective instruments for salesmen selection are standardized personal history blanks, personality tests, interest tests, and interviews. Suggested areas for research are job analyses leading to tests for areas of conflict and to improved criteria.—L. S. Kogan (Rochester).

2527. Bondy, C. **Rehabilitating the internee.** *Publ. Opin. Quart.*, 1943, 7, 629-637.—Because of the unnatural conditions of internment camps, in many instances it will not be possible to give immediate release to Axis prisoners. They will have to be re-educated and rehabilitated in an environment that is being made increasingly normal. The effects of isolation, degradation, insecurity, and living in a mass will have to be overcome in an environment that involves friendliness, interest, and firmness. The writer discusses the psychological and the administrative problems involved in the re-normalization of these people.—H. F. Rothe (Stevenson, Jordan & Harrison, Inc.).

2528. Brentlinger, W. H. **Selected readings on the human relations aspects of personnel management.** *Tex. Person. Rev.*, 1943, 2, No. 4, 39-45.—An annotated bibliography, classified by subject matter, is given.—G. S. Speer (Central YMCA College).

2529. Brooks, A. L. **Mental hygiene and the industrial physician.** *Ment. Hyg.*, N. Y., 1944, 28, 37-40.—Current problems cluster around the necessity of hiring the inadequate, the overage, and women who sometimes find it difficult to adjust to factory life.—W. L. Wilkins (U. S. Naval Reserve).

2530. Burnell, M. R. **Health maintenance program for women in industry.** *J. Amer. med. Ass.*, 1944, 124, 683-687.

2531. Carmichael, L. **The value of the older mind in national defense.** *Publ. Hlth Rep., Wash.*, 1942, Suppl. No. 168, 98-103.—This is a physiological and psychological discussion of the performance of various age groups. The author cites a number of investigations and presents an age distribution of the 61,050 individuals registered with the National Roster of Scientific and Specialized Personnel. The real solution to the problem of the older worker in defense industries must be made in terms of scientific fact and not in terms of sentiment or prejudice.—J. E. Zerga (Avion, Inc.).

2532. Davies, T. A. L. **Fitting industry to human needs.** *Lancet*, 1944, 246, 223-225.—The author discusses accidents, accident prevention, and the physical and psychological conditions of the worker, in relation to the problem of how best to adapt industry and its conditions to human needs.—C. K. Trueblood (Cambridge, Mass.).

2533. Day, E., Miller, R. B., White, L., & Baldwin, J. M. **Medical problems in an overseas air transport service.** *J. Aviat. Med.*, 1944, 15, 2-8.—To obtain adequate civilian personnel for the overseas air transport service, standards of physical fitness have been relaxed and certain minor physical defects, e.g., color blindness, minor allergies and functional gastrointestinal disorders, have been waived. Experience seems to indicate that the acceptance of such carefully considered deviations is justified in the transport service. Problems encountered in combatting infectious diseases, fatigue, and exposure to extreme temperatures are discussed.—A. Chapanis (Wright Field).

2534. Dollard, J. **Twelve rules for meeting battle fear.** *Infantry J.*, 1944, 54, No. 5, 36-38.—The *Infantry Journal* staff has expanded the 12 rules which Dollard deduced from the experiences of 300 veterans of the Spanish Civil War. The rules follow: (1) learn to know when you are becoming afraid; (2) figure out in advance the best ways of meeting danger; (3) keep remembering that being scared makes you a smarter soldier—and a safer one; (4) keep your mind on the job and do it one step at a time; (5) the enemy is scared of you and don't forget it; (6) remember that your life may depend on somebody else's guts and his on yours; (7) remember if you lose, the enemy wins; (8) never show fear in battle; (9) make a wisecrack when you can; (10) fear wears you out; so forget it when you can; (11) don't hesitate to talk about being scared; and (12) have a good time when you get the chance; fun combats fear.—N. R. Barilett (U. S. Naval Reserve).

2535. Gachet, R. R. **Filing occupational information for women.** *Occupations*, 1944, 22, 354-357.—The author describes a filing system for occupational information based on the code system of the *Dictionary of occupational titles*.—G. S. Speer (Central YMCA College).

2536. Gilbert, G. M. **The Personnel Consultant in an army training center.** *Psychol. Bull.*, 1944, 41, 180-186.—The writer reports his experience as a psychologist in the capacity of Personnel Consultant in an army training center. The directive, describing the duties of the Personnel Consultant, is included in the report. The analysis is divided into two sections: (1) clinical and (2) educational (illiterates, special training, and lectures).—S. Ross (U. S. Naval Reserve).

2537. Jacobsen, E. E. **An evaluation of certain tests in predicting mechanic learner achievement.** *Educ. psychol. Measmt.*, 1943, 3, 259-267.—A battery of well-known mechanical and manual ability tests was used to predict achievement ratings in 5 types of aircraft skills. Multiple correlations, using the best 2 tests, range from .42 to .61 for 4 of the 5 classes and were raised only slightly by including more predictors.—L. S. Kogan (Rochester).

2538. Jones, A. N. **Music in industry.** *Tex. Person. Rev.*, 1943, 2, No. 4, 94-98.—This is a brief review of the psychological effects of the use of music in industry. The major conclusion is that fatigue is to some extent postponed or prevented through the relaxation afforded by the music. Bibliography of 60 items.—G. S. Speer (Central YMCA College).

2539. Knowles, A. S., & Thomson, R. D. **Industrial management.** New York: Macmillan, 1944. Pp. xiv + 791. \$4.50.—Five aspects of industrial management are considered in turn: management of physical property, organization of the physical plant, management of manpower, production control, and cost control. Of these five, only the section on the management of manpower is concerned with psychological problems. The topics discussed in detail under this heading include organization and morale, the development of safety and health programs, the selection and training of workers, the use of motion and time studies, techniques of job evaluation, methods of merit rating, and methods of employee compensation.—D. W. Taylor (Harvard).

2540. Kronenberg, M. H. **Working conditions for female employees.** *J. Amer. med. Ass.*, 1944, 124, 677-682.—Machines should be redesigned to fit the shorter, lighter, and less strong woman worker. Selection of female employees should be carefully made, night work should be limited, and, if possible, provision for the work to be performed in either a sitting or standing position should be made. Lifting of weights greater than one third of the body weight should be forbidden, and the best methods for both lifting and carrying should be taught the workers. Work clothes should be designed for comfort, safety, and attractiveness. Provision for adequate sanitation, rest periods, lunch rooms, transportation, housing, and health should be the responsibility of the management.—E. Verville (Wisconsin).

2541. Kuhn, H. S. **Significance of visual defects in war production effort.** *J. Amer. med. Ass.*, 1943, 123, 1085-1088.—Basic tests for uncorrected acuity for distance and near vision, acuity with glasses, muscle balance, stereopsis, and color appreciation, as well as some special tests, were made of industrial employees and applicants. The percentage of defects in applicants was double in 1943 that in 1940. The industrial consulting ophthalmologist must supervise treatment of eye injuries, eye protection plans, job standard evaluations, and rehabilitation procedures. He must study the applicants who fail the visual screening test and search for degenerative retinal and other diseases.—E. T. Verville (Wisconsin).

2542. Lay, C. F. **A guide to the literature on personnel management.** *Tex. Person. Rev.*, 1943, 2, No. 4, 29-38.—An annotated bibliography of 160 items, classified by subject matter, is given.—G. S. Speer (Central YMCA College).

2543. Lennon, R. T. **Placement testing of the civilian personnel in the Air Service Command.** *Psychol. Bull.*, 1944, 41, 167-179.—A report is presented of the functions of the Placement Testing Unit of the Air Service Command. The aptitude test program and the trade information and performance test program are described. Other topics discussed include: the typical uses of aptitude tests at Air Service Command stations, the use of test results by supervisors, and a handbook on the use of tests in the placement of clerical personnel.—S. Ross (U. S. Naval Reserve).

2544. Malone, C. L. **Army classification.** *Milit. Rev.*, Ft Leavenworth, 1944, 23, No. 12, 11-14.—As the Army rapidly expanded, it became necessary to make a wise distribution of skills. To take all essen-

tial skills from industry would have been disastrous, but on the other hand the Army urgently needed men with certain skills. The Army Classification System was designed to meet the problems of such apportionment. This system has its origin in the Induction Station and Reception Center, including testing, interviews, classification, and assignment. The three tests are: Army General Classification Test, the Mechanical Aptitude Test, and the Radio Operator's Aptitude Test. The interviewer tries to obtain a good picture of the individual's past history. In order to accomplish this to the best purposes of classification and assignment, the interviewer must be well trained and under constant observation of the Classification Officer and Section Chief. Classifiers have to take into account all available evidence on an individual before an assignment is made. Job specification data are available to classifiers, and the assignment aims to make the individual's total record and the job specification coincide. A coding system has been developed to aid in this task. After the assignment has been made, morale should be watched to see if the man is happy at his work.—R. L. Solomon (Brown).

2545. Mann, I., & Archibald, D. **A study of a selected group of women employed on extremely fine work.** *Brit. med. J.*, 1944, 1, 387-390.—Twenty-eight women and girls between the ages of 15 and 40, employed on spiral inspection, were given extensive visual tests and asked about the incidence of headaches and their preferred recreation. They were also given a group Rorschach examination, the Harrower-Erickson's multiple-choice technique being used. These workers were found to have a highly developed stereoscopic sense and muscle balance at the near point. The few complaints of disliking the job came from persons with phorias rather than with high refractive errors. Most of the workers were psychologically stable.—E. T. Verville (Wisconsin).

2546. Manuel, H. T. **Selecting youth for college war training.** *Tex. Person. Rev.*, 1943, 2, No. 4, 116-117.—The use of the Qualifying Test in the selection of young men for college training of military personnel is described and then related to demobilization and guidance problems of the veteran and non-veteran.—G. S. Speer (Central YMCA College).

2547. Markuson, K. E. **Mental hygiene and industry; mental aspects of industrial employment.** *Ment. Hyg., N. Y.*, 1944, 28, 28-36.—The simple anxieties and anxiety neuroses are the chief sources of trouble in industry. They may be detected through the employment interview or by the medical examiner. Successful industrial hygiene also demands the careful selection of foremen, who should be counselors for their groups.—W. L. Wilkins (U. S. Naval Reserve).

2548. Mayberry, H. T. **Measuring leadership qualities of officer candidates.** *Tex. Person. Rev.*, 1943, 2, No. 4, 79-83.—The interview, rating scale, and techniques employed in evaluating leadership of officer candidates are described.—G. S. Speer (Central YMCA College).

2549. McNasson, D. J. **Army officers in the making.** *Educ. Leadership*, 1944, 1, 230-238.—See *Educ. Abstr.* 9: 302.

2550. Moore, B. M. Human factors in absenteeism. *Tex. Person. Rev.*, 1943, 2, No. 4, 23-28.—The factors involved in absenteeism are discussed, and absenteeism, of any variety, is shown to arise "from factors in human living that come out of maladjustments that are inevitably accentuated in a nation at war."—G. S. Speer (Central YMCA College).

2551. Moore, B. M. Psychological adjustment of women workers to the job. *Tex. Person. Rev.*, 1943, 2, No. 4, 59-60.—G. S. Speer (Central YMCA College).

2552. Novotny, A. Counseling problems for wartime trainees. *Tex. Person. Rev.*, 1943, 2, No. 4, 112-115.—This is a description of the use of a check sheet in locating recreational, social, and religious interests of men enrolled in a Navy V-12 program.—G. S. Speer (Central YMCA College).

2553. Street, R. F. The selection and training of leaders as a factor in industrial mental health. *Ment. Hyg., N. Y.*, 1944, 28, 41-48.—A good leader is interested in people as well as in output, and foremen should be selected on the basis of their ability to understand the persons under them. Much training for leadership should be carried on in the schools, but in-service training of foremen is vital and should stress problems of intercommunication and of recognition of social status.—W. L. Wilkins (U. S. Naval Reserve).

2554. Webster, H. G. Contributions of community organizations to industrial mental health. *Ment. Hyg., N. Y.*, 1944, 28, 49-54.—Industrial efficiency is affected by factors outside the plant as well as by those inside. Among the mental health problems are those of mothers who work; social agencies might well help to determine whether a mother's working would result in serious social or mental problems, for some mothers are anxious to work to escape home responsibilities. The adjustment of men rejected from the armed services for psychiatric reasons is also a community rather than an individual problem.—W. L. Wilkins (U. S. Naval Reserve).

[See also abstracts 2365, 2430, 2431, 2437, 2449, 2466, 2467, 2468, 2472.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

2555. Alves, A. A. *Los niños retardados y las clases diferenciales.* (Retarded children and auxiliary classes.) Montevideo: Imprenta Nacional, 1943. Pp. 264.—[Abstracted review; original not seen.] After reviewing the history of the auxiliary class in various countries, the author presents the results of an intensive study of such procedures in Uruguay since 1928. The need for special training of teachers is emphasized, and the desirability of continuing research in the field is recommended.—H. D. Spoerl (American International College).

2556. Artley, A. S. A study of certain relationships existing between general reading comprehension and reading comprehension in a specific subject matter area. *J. educ. Res.*, 1944, 37, 464-473.—The correlation between reading comprehension of a specific nature (social studies) and general reading com-

prehension was .79. The correlation was increased to .86 when the test scores were corrected for attenuation, and reduced to .75 when the effect of intelligence was partialled out. Correlation is as high between general and specific comprehension as it is between two tests of general reading ability. Abilities measured by general and specific reading comprehension tests are present to an equal extent in an achievement test in the social studies. Certain factors assumed to be components of reading comprehension are analyzed, and the educational implications of the findings are discussed. Bibliography of 21 titles.—M. Murphy (Pennsylvania).

2557. Bathurst, E. G. *Phonograph records as an aid to learning in rural elementary schools; a handbook for teachers and supervisors.* Albany: New York State Education Department, 1943. Pp. 171.—The opinions of New York rural school teachers were collected on the value of phonograph records in nature studies, appreciation of English in reading and speaking, and studies of the lives of country children in different American sections. Using as a measure both the spontaneous interest expressed by the pupils and, as a more indirect index, the degree to which further learning was stimulated, the school officials felt that the 38 records tried out were a success. They stressed the advantage of the phonograph in supplementing the academic program of restricted rural schools, arousing further interest, and socializing shy rural children.—L. Adams (Barnard).

2558. Berdie, R. F. Factors related to vocational interests. *Psychol. Bull.*, 1944, 41, 137-157.—This review summarizes the information now available concerning the determinants of vocational interests. After presenting various definitions of interests, the author offers an analysis of the determinants. These are divided into relatively intrinsic determinants (age, sex, and ability) and social determinants (family, school and teachers, work experience, occupational information, hobbies, and activities). The relationships between vocational interests and personality manifestations are also discussed. A bibliography of 62 items is given.—S. Ross (U. S. Naval Reserve).

2559. Blackwell, A. M. A list of researches in educational psychology and teaching method, presented for higher degrees of British universities from 1918 to the present day. Part II. *Brit. J. educ. Psychol.*, 1944, 14, 46-50.—The titles are classified under intelligence tests, statistical methods, correlational psychology, mental ability, and specific abilities and aptitudes. (See also 18: 1214.)—R. C. Strassburger (St. Joseph's College for Women).

2560. Blumenfeld, W., & Sardón, M. A. Los rendimientos en el test colectivo de Terman en su dependencia de la edad cronológica y del grado escolar. (Findings with the Terman group test related to chronological age and school grade.) *Bol. Inst. Psicopedag. nac., Lima*, 1943, 2, 3-27.—The IQ ratings were obtained for 652 boys in the Lima public schools, with a placement ranging through 4 school grades and age groupings from 12 to 16 years. Representatives of each age were found in all school grades within the range, with exception of terminal ages in terminal grades included in the study. Correlation of results according to age and according to grade

produced this finding: an increase of IQ with grade is accompanied by virtually no change (slight decrease) with chronological age in a given grade. Further investigation will be undertaken to determine the factors responsible for this. In general, subtests followed the total trends.—*H. D. Spoerl* (American International College).

2561. Brasch, L. The relative effects of individual competition and group competition as motivational factors in achievement in arithmetic at three levels of intelligence. *Abstr. grad. Thes. Educ. Univ. Cincinnati*, 1944, 4, 65-78.—Abstract.

2562. Briggs, T. H. A self-rating scale for school principals. *Bull. nat. Ass. sec. Sch. Prin.*, 1943, 27, No. 118, 49-64.—See *Educ. Abstr.* 9: 298.

2563. Congdon, N. A. The perplexities of college freshmen. *Educ. psychol. Measmt.*, 1943, 3, 367-375.—By use of the Mooney Problem Check List it was found that the largest number of problems for students was in the area of adjustment to college work. Certain problems tended to be brought out with increased attendance in school. Relationships were found between the check list and the Bell Adjustment Inventory. Those with lower grades were likely to have more problems of adjustment.—*L. S. Kogan* (Rochester).

2564. Cook, R. C. Vacation retention of fundamentals by primary-grade pupils. *Elem. Sch. J.*, 1943, 43, 214-219.—Children in the first two grades were provided with workbooks in reading and arithmetic vocabulary, on which they were to spend 15 minutes a day during the summer vacation. Retesting in the fall on reading tests and arithmetic vocabulary revealed that the rapid forgetting after vacation usually reported in other studies was checked, especially with average and above average children. The greater the amount of time reported spent during the summer, the less the forgetting.—*L. Adams* (Barnard).

2565. Davis, R. A. Testing and the course of classroom learning. *J. educ. Psychol.*, 1943, 34, 526-534.—Testing situations must be specifically related to teaching objectives in order to be effective in directing the course of learning. For instance, more than rote memory should therefore be required by tests if the teacher intends to do more than instill facts. Tests, as an integral part of learning, may be given at any time during a course. Tests to accompany specific assignments, tests on major units, mid-term and final tests each have special functions and characteristics. The early tests should be such that they can be utilized as bases for further learning, whereas final comprehensive examinations help in the evaluation of both the learning and the instruction and show how well the objectives of the course have been realized.—*E. B. Mallory* (Wellesley).

2566. DeProspo, C. J. Services of the specialist in guidance and placement of the mentally retarded. *Amer. J. ment. Def.*, 1944, 48, 299-301.—A plan is outlined from realistic curricula to job placement, follow-up, and job supervision for the mentally retarded. The writer points out that it is enlightened self-interest to make the retarded self-supporting and self-respecting citizens, since the cost of lifetime custodial care for one retardate is \$7,000. At the present pupil ratio, guidance placement service costs less than

81¢ per pupil per year.—*S. Whiteside* (Cincinnati Public Schools).

2567. Derisi, O. N. Orientación vocacional y profesional. (Vocational and occupational guidance.) *Rev. Educ., La Plata*, 1943, 84, No. 5, 25-45.—Within the generic vocation of fulfilling human existence on a spiritualized level are the vocational directions of personal expression roughly indicated by typologies such as Spranger's and Jung's. Beyond these broad vocational considerations come specific occupational commitments, but the latter are properly determined always by the nature of the former. Most of the objective scientific aids to occupational adjustment take for granted the prior vocational determinations, often wrongly so. Vocational and occupational guidance, with educational programs related to them, should be under the management of parents, the church, and the state, in that order of direct participation. The state's part consists of providing organized instruction and medical facilities.—*H. D. Spoerl* (American International College).

2568. Dunlap, J. W., & Harper, B. P. Profiles of interest scores. *J. higher Educ.*, 1944, 15, 159-160.—A form for the graphic presentation of scores on the Strong Vocational Interest Blank is described. This form has been found useful in counseling college students. Specific occupational ratings are grouped in what are called interest areas. The use of these interest areas discourages the tendency to counsel students in terms of the specific occupations for which the blank happens to be scored.—*M. Murphy* (Pennsylvania).

2569. Eckhardt, C. J., Jr. Report on measurement and guidance project in engineering education. *Tex. Person. Rev.*, 1943, 2, No. 4, 118-120.—A preliminary report is given of the results of testing 500 students with a pre-engineering inventory of 6 tests. The results are still indefinite but appear promising.—*G. S. Speer* (Central YMCA College).

2570. Flesch, R. Marks of readable style; a study in adult education. *Teach. Coll. Contr. Educ.*, 1943, No. 897. Pp. ix + 69.—Using magazine articles for data, a study of the Lorge readability index shows frequency of hard words to be a measure of "adulthood" and hence unsuitable for differentiating equally "adult" material; of the other 4 factors tested, the number of prepositional phrases per hundred words is lowest in readability prediction value, whereas sentence length, frequency of abstract words, and frequency of affixed morphemes showed value as indices of readability even for highly difficult material. On the basis of this experiment, the author developed a new readability regression formula for use in estimating the comprehension difficulty of a given text, using the weighted factors of sentence length, frequency of affixed morphemes, and frequency of personal references. Instructions for using the formula are given, together with sample graded passages. Bibliography of 88 titles.—*L. Birdsall* (College Entrance Examination Board).

2571. Gilbert, L. C., & Gilbert, D. W. The improvement of spelling through reading. *J. educ. Res.*, 1944, 37, 458-463.—Upper class college students who were superior spellers were used as subjects in an experiment to study improvement of spelling through reading. By means of an initial

spelling test, certain critical words were determined. Eye movements were photographed during reading of a prose passage in which critical words were embedded and also during intentional study of other critical words in isolation. Spelling gains resulted from the reading, although they were not as great as those resulting from intentional study. Eye-movement records showed that normal reading progression was modified when spelling of critical words was noted. The authors warn against interpreting the results to mean that pupils should be taught to learn spelling during reading.—*M. Murphy* (Pennsylvania).

2572. Good, C. V. Doctors' dissertations under way in education, 1943-1944. *J. educ. Res.*, 1944, 37, 376-400.—*M. Murphy* (Pennsylvania).

2573. Goodenough, F. L. Selected references on preschool and parental education. *Elem. Sch. J.*, 1944, 44, 425-429.—Material is listed on the methods of measuring child behavior by the Gesell Incomplete Man test, the Gesell Developmental Schedule, case histories, self-identification of the child, the Bernreuter questionnaire as a measure of parental-child relations, and the rating of fetal environment by the mother. The results of such methods are also given upon the following topics: insecurity, aggressive behavior with recommended therapy, negativism, social development in boarding homes, frustration effects, attitudes of fathers toward infants, training in bladder control, relation of language and play, etc. Some nontechnical articles and books are also included.—*L. Adams* (Barnard).

2574. Gray, W. S. Summary of reading investigations July 1, 1942, to June 30, 1943. *J. educ. Res.*, 1944, 37, 401-440.—Bibliography of 110 titles.—*M. Murphy* (Pennsylvania).

2575. Grossnickle, F. E. Some factors affecting a test score in division of decimals. *J. educ. Res.*, 1944, 37, 338-342.—In the case of both easy and difficult examples in division of decimals, more examples are solved incorrectly when the examples are arranged in a random sequence than when they are grouped according to type. Difficult examples have no more diagnostic value than easy examples.—*M. Murphy* (Pennsylvania).

2576. Guiler, W. S., & Edwards, V. An experimental study of methods of instruction in computational arithmetic. *Elem. Sch. J.*, 1942-1943, 43, 353-360.—Of 7th and 8th grade pupils who were matched for computational ability, the group who were given individual attention on diagnosed weakness made much greater progress, as measured by error quotient, than those with the usual group conventional method. Students with the highest intelligence or with highest computational levels improved the most. Differences were found in the relative difficulty of the various computational processes.—*L. Adams* (Barnard).

2577. Guiler, W. S., & Lease, G. A. An experimental study of methods of instruction in spelling. *Elem. Sch. J.*, 1943, 43, 234-238.—See *Educ. Abstr.* 8: 458.

2578. Hall, J. V. Oral aids to problem-solving. *Elem. Sch. J.*, 1943, 43, 220-224.—See *Educ. Abstr.* 8: 430.

2579. Hamalainen, A. E. An appraisal of anecdotal records. *Teach. Coll. Contr. Educ.*, 1943, No. 891. Pp. vii + 87.—Six classroom teachers recorded 1,803 behavior anecdotes on 119 pupils in and out of the classroom over a three-month period. Teachers' rankings of pupils on the basis of the anecdotes were compared with ranks on the Metropolitan Achievement Tests, the Wrightstone Test of Critical Thinking in the Social Studies, the C. E. I. Guess Who Test, and the Rogers Test of Personality Adjustment. Interests indicated in the anecdotal records were compared with those indicated in the Hildreth Personality and Interest Inventory. The author concludes that teachers are able substantially to judge pupil social relationships after using anecdotal records; the anecdotes revealed interests and changes in interests not shown in the Hildreth Inventory; the success of the anecdotal method is dependent upon the outlook of the teacher and the type of educational program; anecdotes are often a reflection of the teacher's outlook; and the most significant anecdotes are those gathered by teachers with much work in psychology, mental hygiene, and child development. Illustrative anecdotes are included. Bibliography of 50 titles.—*L. Birdsall* (College Entrance Examination Board).

2580. Hamalainen, A. E. An appraisal of anecdotal records. *Teach. Coll. Rec.*, 1944, 45, 352-353.—Abstract. (See 18: 2579.)

2581. Humber, W. J. The relationship between reading efficiency and academic success in selected university curricula. *J. educ. Psychol.*, 1944, 35, 17-26.—Measures of 16 reading skills and ACE test scores were secured for college seniors studying 11 different professional curricula, e.g., medical technology, dietetics, forestry, music education, etc. Correlations were found between the reading skills and honor point ratios of students in the several groups. "Scores on the reading tests are shown to be frequently related to achievement in the humanities groups (English Education and Music Education) but infrequently related to achievement in those curricula emphasizing science material."—*E. B. Mallory* (Wellesley).

2582. Johnson, H. C. Problem-solving in arithmetic: a review of the literature. I. *Elem. Sch. J.*, 1944, 44, 396-403.—A variety of methods, especially the association method where pupils follow a model and the dependencies method where relations are emphasized, are reported in the literature. The authors conclude that probably the method is less important than the enthusiasm and care of the teacher applying it. Below average children especially were improved by using individual methods. Many of the reported studies were criticized for lack of experimental control or statistical significance.—*L. Adams* (Barnard).

2583. Kopel, D., & Geerdes, H. A survey of clinical procedures in the diagnosis and treatment of poor reading. *J. educ. Psychol.*, 1944, 35, 1-16.—Questionnaires returned by 41 psychological clinics which offer service to poor readers showed wide variety in the examinations, types of appraisals, and therapy available. Representative statements are quoted, and an inclusive technique is outlined. 23 clinics reported the estimated effects of their remedial procedures. The average per cent for which complete or

substantial success was reported was 60; partial success, 27; no success, 5; and effects unknown, 6. Topics now under study at these clinics are listed.—*E. B. Mallory* (Wellesley).

2584. Leavell, U. W. Development of reading readiness through instruction. *Peabody J. Educ.*, 1943, 21, 28-41.—Several diagnostic aspects of reading readiness are listed, but emphasis is placed upon stimulating the child to the point where he wants to read. Methods are outlined whereby reading interest may be developed by stimulation of (1) intellectual curiosity, (2) experiences which lead to reading, and (3) a sense of the need of reading ability.—*N. B. Cuff* (Eastern Kentucky).

2585. Leavell, U. W., & Fults, F. C. Dominance and displacement of visual imagery in relation to reading achievement. *Peabody J. Educ.*, 1943, 21, 103-108.—From 2,500 children, a group of 192 was selected. These children, from grades 2, 4, and 6, were divided into equated groups on the basis of dominance pattern. The conclusions, based on scores from tests of dominance, indicate that regardless of the field in which a visual image is presented there is a strong tendency for the subject to reproduce the figure in the field which corresponds to his dominance pattern. Also, the results suggest that left-dominance is less favorable to the acquisition of reading skill than is right-dominance and that conflict between eye and hand dominance is less favorable than is complete left-dominance.—*N. B. Cuff* (Eastern Kentucky).

2586. Leifeste, B. V. An investigation of the reliability of the sampling of reading material. *J. educ. Res.*, 1944, 37, 441-450.—A true measure of vocabulary difficulty was obtained by checking, using the Yoakam technique, the entire vocabulary of 12 books. The reliability of 11 different types of sampling was then determined. Close agreement was found between size of sample and reliability. For practical purposes, sampling 15 selected pages seems to produce the most adequate results in the least amount of time, but for a high degree of accuracy every tenth page is recommended. There was a tendency for the books to be undergraded rather than overgraded by the publishers.—*M. Murphy* (Pennsylvania).

2587. Lorge, I. Predicting readability. *Teach. Coll. Rec.*, 1944, 45, 404-419.—Readability, defined in terms of the success a large number of people have in comprehending reading material, depends upon the kind and number of ideas, the vocabulary, style, format, and typography of the text. The Vogel-Washburne and Gray-Leary formulae for predicting readability are described. The Lorge formula is described in detail and involves the following factors: average sentence length, ratio of prepositional phrases to number of words, and proportion of hard words. The article includes complete instructions for using the formula, a worksheet, and the Dale list of 769 easy words. Bibliography of 27 titles.—*L. Birdsall* (College Entrance Examination Board).

2588. Marcum, D. M. Experiences, concepts, and reading. *Elem. Sch. J.*, 1944, 44, 410-415.—A list of 287 concepts frequently found in basic first and second grade readers is given. It is suggested that these concepts should be built up slowly in children

through real life experiences and through repetition in both early and later readers. The less frequent concepts ought to be reduced in all books.—*L. Adams* (Barnard).

2589. Marie, Sister L. Remedial reading in intermediate grades. *Cath. Schs J.*, 1944, 44, 77.—*G. S. Speer* (Central YMCA College).

2590. McCaul, R. L. The effect of attitudes upon reading interpretation. *J. educ. Res.*, 1944, 37, 451-457.—An experiment conducted with pupils in grades 7-10 showed that the interpretation of reading material is affected by pupils' attitudes, particularly with regard to motives which they ascribe to persons about whom they read. Boys seem to be influenced by their initial attitudes more than girls. The higher the grade of the pupils the more they are influenced by their attitudes, but the difference here is not statistically significant.—*M. Murphy* (Pennsylvania).

2591. McDade, J. E. Examination of a recent criticism of non-oral beginning reading. *Elem. Sch. J.*, 1944, 44, 343-351.—An answer is made to Rohrer's contention that non-oral reading is based upon fundamentally incorrect psychology (see 17: 3970). His first criticism, that such a program would imply that learning takes place only in the central nervous system, ignores the fact that motor activity can be other than speech. His use of the fact that learning in two sense modalities is faster as an argument against non-oral reading shows a complete misunderstanding of the setup of the experiments quoted. The other criticisms are also broken down, and the author gives evidence from studies conducted since 1936 on the great improvement of first graders through using the non-oral reading before trying oral reading.—*L. Adams* (Barnard).

2592. Moragas, J. de. El método global de lectura en los oligofrénicos. (The global reading method with oligophrenics.) *Criança portug.*, 1943, 2, 85-90.—The global method of learning to read assumes syncretism in the child (Renan). It is contended that an analytical stage of development must precede any syncretistic stage, and that consequently the method is unsuitable not only in the case of defective children, with whom the author's efforts completely failed, but also in that of normal children. A picture experiment is cited in support of this contention, and the 5 pictures used are reproduced.—*H. D. Spoerl* (American International College).

2593. Morgan, O. I. The effects of school training on the use of leisure after leaving school. *Brit. J. educ. Psychol.*, 1944, 14, 51-53.—This summary presents the results of a questionnaire study designed to ascertain what use is made by elementary school girls, after they enter employment, of the training in leisure received at school. One hundred and two former students, aged 14-18, of a senior girls' school in a large industrial town responded to the inquiry, and informal interviews were held with about 50 girls. It is generally indicated that school training in leisure has little influence upon the manner in which free time is occupied after leaving school. Reasons suggested are (a) the tendency to repudiate things connected with school; (b) a desire to escape from drab surroundings; (c) the appeal of commercial entertainments; (d) a home environment in which concentrated activity is difficult; and (e) a school life in

which there is insufficient time for training in the use of leisure.—*R. C. Strassburger* (St. Joseph's College for Women).

2594. Nelson, M. L. Why do capable pupils fail? *Nation's Schs.*, 1944, 33, 45-46.—See *Educ. Abstr.* 9: 316.

2595. O'Connor, E. Vocational counseling. *Crippled Child*, 1944, 21, 143-144; 165-166.—Every child, but especially every crippled child, should be given expert vocational counseling before leaving high school so that his abilities and worth may be properly evaluated. The author describes the employment experience of a number of handicapped individuals.—*G. S. Speer* (Central YMCA College).

2596. Park, G. E., & Burri, C. Eye maturation and reading difficulties. *J. educ. Psychol.*, 1943, 34, 535-546.—A study of fusion, stereopsis, phorias, and difficulties in ductions of near and distant vision in children from grades 1 to 8 showed higher percentages of adequacy in the higher grades. It appears that many children begin reading before their eyes are functionally mature. If a child is forced to read before his visual mechanism is sufficiently developed, ocular difficulties probably tend to become fixed. Such children not only have difficulty in reading but may develop nervousness and irritability. Anxiety aroused by their failure to learn and by criticism may cause psychological behavior problems. Careful checks on eye conditions, before reading is undertaken, are therefore imperative.—*E. B. Mallory* (Wellesley).

2597. Paterson, D. G., & Tinker, M. A. Eye movements in reading type sizes in optimal line widths. *J. educ. Psychol.*, 1943, 34, 547-551.—With two groups of 20 college students as subjects, comparisons were made of the eye-movement pattern for reading 11 pt. vs. 8 pt. and 11 pt. vs. 6 pt. type, each presented with optimal length of line. Paragraphs from the Chapman-Cook Speed of Reading Test were used. Eye movements were photographed with the Minnesota eye-movement camera. Fixation frequency, words per fixation, pause duration, perception time, and regression frequency were recorded. The larger type showed some superiority in each instance, although the differences were significant beyond the 1% level only for pause duration and perception time.—*E. B. Mallory* (Wellesley).

2598. Pires de Almeida, G. A música e a educação. (Music and education.) *Bol. Serv. soc. Menores, S. Paulo*, 1943, 3, 65-71.—The pedagogical value of music includes effect on attention and sensitivity, promotion of discipline and social relationships, and development of rhythm. Effective use of music to these ends was stressed by Froebel.—*H. D. Spoerl* (American International College).

2599. Porter, E. H., Jr. The development and evaluation of a measure of counseling interview procedures. Part II. The evaluation. *Educ. psychol. Measmt.*, 1943, 3, 215-238.—Nineteen representative interviews were studied in order to evaluate a check list for classifying types of procedures. Thirteen experienced judges used the check list in conjunction with transcripts and phonographic recordings. Evidence of reliability and validity in use of the check list was satisfactory. (See also 18: 1901.)—*L. S. Kogan* (Rochester).

2600. Schoenberg, M. W. The value of educational psychology to the novice teacher. *Cath. Educ. Rev.*, 1944, 42, 13-23.—See *Educ. Abstr.* 9: 317.

2601. Simón, M. Dos problemas de psicología en orientación profesional. (Two psychological problems in vocational guidance.) *Bol. Inst. Psicopedag. nac., Lima*, 1943, 2, 29-48.—The first problem investigated was that of the relation between global intelligence and attention. Using the Otis test and tests of attention by Toulouse, Piéron, and Kraepelin, a correlation of .69 was obtained (205 cases). Thus attention may be used as an index of intelligence in guidance situations. The second problem concerned the allied question of the relation between objective measures and subjective estimates of intelligence, the results confirming the findings in favor of avoiding the use of tests where inconvenient.—*H. D. Spoerl* (American International College).

2602. Smith, K. R. A simple device to induce rapid reading. *J. educ. Psychol.*, 1944, 35, 55-57.—Since students reported that the Harvard Films for the Improvement of Reading produced a reading situation which was unnatural and somewhat bewildering and since the Metronoscope would supposedly be subject to the same sort of objection, the author used a pacing technique of informing the students orally at the moment when each successive group of 250 words should have been read at a specified rate. After the signal the passage was covered up, and the student or class gave a brief summary of the passage. An informal vocabulary test was given as a further check. This method seems to have the advantages of simplicity and face validity and to present a normal reading situation. Results for a total of 30 students showed that for those with 6 class meetings, it was possible to increase speed from 300 to 460 words per minute, and for those with 7 meetings, to increase from 272 to 420 words per minute. Comprehension was not lowered. This technique is especially useful since, with slight modifications, it can be used by the student who wishes to practice by himself.—*E. B. Mallory* (Wellesley).

2603. Snyder, H. E. Educational inbreeding. *Teach. Coll. Contr. Educ.*, 1943, No. 890. Pp. x + 160.—This study of the employment of local teachers in preference to non-local teachers is based on 315 city school systems and 1,387 teachers. The survey includes: a review of studies and opinions on the effect of inbreeding upon the schools, a review of policies of school boards and superintendents throughout the country concerning employment of local teachers, and statistical evidence bearing on the relationship of inbreeding to factors commonly assumed to be related to teaching effectiveness. Nine cities were considered in a study of individual community differences with respect to inbreeding. Bibliography of 62 titles.—*L. Birdsall* (College Entrance Examination Board).

2604. Stewart, J. R. A remedial-reading program. *J. higher Educ.*, 1944, 15, 83-85; 116.—Freshmen at the University of Cincinnati scoring below the 30th percentile on the Nelson-Denny Reading Test for Colleges and Senior High Schools were organized into required remedial reading classes meeting 2 periods a week throughout a term of 8 weeks. The methods used differed from those commonly employed.

Mechanical devices were not used; only 10 minutes of each period were devoted to the more formal type of speed and comprehension exercises; most of the reading material used was taken from the students courses and varied according to the school within the University which the student attended; and instruction and guidance were given in such things as the use of the whole book, purposeful rather than casual reading, and the use of summaries and paragraph headings.—*M. Murphy* (Pennsylvania).

2605. Stone, C. R. Validity of tests in beginning reading. *Elem. Sch. J.*, 1942-1943, 43, 361-365.—The vocabulary in 9 reading tests was checked against Stone's 10 levels of graded vocabulary found most frequently in primary readers. On the basis of this the author selects the tests (Garrison and Stone) which are most valid for measuring first-grade vocabulary.—*L. Adams* (Barnard).

2606. Strang, R. Relationships between certain aspects of intelligence and certain aspects of reading. *Educ. psychol. Measmt.*, 1943, 3, 355-359.—Correlations between intelligence tests and reading tests are in the neighborhood of .60, with the correlation being largely based on the verbal aspects of the tests. Growth in reading is shown to parallel growth in general. Certain implications of reading research in the field of guidance are pointed out.—*L. S. Kogan* (Rochester).

2607. Triggs, F. O. A study of the relation of Kuder Preference Record scores to various other measures. *Educ. psychol. Measmt.*, 1943, 3, 341-354.—Reliability of the Preference Record is found to be high enough for counseling purposes. Scales on the test tend to be independent. Fair agreement is reported between scales on the Kuder and on the Strong. Some significant relations are revealed between specific interest and specific ability.—*L. S. Kogan* (Rochester).

2608. Tsao, F. Is AQ or F score the last word in determining individual effort? *J. educ. Psychol.*, 1943, 34, 513-526.—The FQ, obtained by dividing the individual's E (educational score) by his predicted E and multiplying by 100, gives the best measure of effort. The predicted educational score is dependent on the standard deviations of and the correlation between intelligence scores and the achievement scores concerned, as well as on the individual's actual scores. In this the FQ is superior to the AQ, F, and ER, which are based on false assumptions regarding correlations between intelligence and achievements. Other advantages of FQ as a measure of effort are also found.—*E. B. Mallory* (Wellesley).

2609. Urban, J. Behavior changes resulting from a study of communicable diseases; an evaluation of the effects of learning on certain actions of high school pupils. *Teach. Coll. Rec.*, 1944, 45, 351-352.—Abstract.

2610. Wall, W. D. The decay of educational attainments among adolescents after leaving school; a research based on the testing of adolescents in two army centres. *Brit. J. educ. Psychol.*, 1944, 14, 19-34.—Although originally designed for guidance in setting up a program of training, this extended study of 135 young civilian employees of two Army Ordnance Centers demonstrates the impermanence of elementary-school learning and has broader implications as

regards the pattern for continued education for adolescents in industry. Averaging about 16 years in age, this group of 88 girls and 47 boys has an IQ of 92. In arithmetic achievement there is an average retardation of 1½-3 years; the spelling level is about one year below expectation on the basis of mental age; and comprehension ability is generally undeveloped to any useful degree. Reading interests are superficial, and there is little evidence of capacity for social interests or esthetic emotions. Definite vocational interest is almost entirely confined to the boys. In the program of instruction undertaken, the value of an informal approach is evident, although in view of the extent of absences it would appear that some form of compulsory attendance at continuation schools is necessary.—*R. C. Strassburger* (St. Joseph's College for Women).

2611. Wiles, M. E. Effect of different sized tools on the handwriting of beginners. *Elem. Sch. J.*, 1943, 43, 412-414.—See *Child Develpm. Abstr.* 17: 576.

2612. Williamson, E. G. Postwar guidance of students. *Tex. Person. Rev.*, 1943, 2, No. 4, 106-111.—Many of the returning veterans will be foreigners in a psychological sense, and they will have different sets of values as well as many special problems. The author discusses these problems in three areas: accrediting military training for college and high schools; vocational guidance of veterans; and a number of special mental hygiene problems which the veteran may be expected to present.—*G. S. Speer* (Central YMCA College).

2613. Wittenborn, J. R., & Larsen, R. P. A factorial study of achievement in college German. *J. educ. Psychol.*, 1944, 35, 39-48.—The subjects in this investigation were 79 college students who volunteered to participate. Achievement in elementary German was determined by 4 criteria, namely, first semester marks, reading subtest scores, vocabulary subtest scores, and grammar subtest scores of the Cooperative German Test. Factorial analysis was employed to discover the relationships of these criteria to 22 measures of abilities and skills presumably involved in the learning of a language. German achievement and English training tests define a factor tentatively defined as a language factor. Esperanto subtests cluster among themselves and with English training tests and Otis, but they do not contribute greatly to the language factor. Rote memory tests do not contribute to the criteria. The indices of German achievement are significantly weighted with the language factor only.—*E. B. Mallory* (Wellesley).

2614. Wittenborn, J. R., Triggs, F. O., & Feder, D. D. A comparison of interest measurement by the Kuder Preference Record and the Strong Vocational Interest Blanks for men and women. *Educ. psychol. Measmt.*, 1943, 3, 239-257.—Comparison of the two inventories as applied to common cases in two universities reveals tentatively that many expected areas of agreement are lacking.—*L. S. Kogan* (Rochester).

2615. Wrightstone, J. W., Parke, M., & Bressler, M. Introducing child study practices in selected schools in New York City. *J. educ. Res.*, 1944, 37, 512-520.—The program described here was introduced two years ago in three elementary schools in

which educational problems were more difficult than in the average school. Many of the children were Puerto Rican and came from bilingual homes; others were Negroes who had recently come from the South. The neighborhoods in which the children lived were culturally and economically deprived. The program was based on the observation of individual children, record keeping, and the development of techniques for the effective study of the children's growth. Case studies are given, illustrating the methods employed.—*M. Murphy* (Pennsylvania).

[See also abstracts 2387, 2440, 2499, 2503, 2520, 2535.]

MENTAL TESTS

2616. McIntosh, D. M. **The effect of practice in intelligence test results.** *Brit. J. educ. Psychol.*, 1944, 14, 44-45.—Two groups, 38 and 36 children, with an average age of 12 years, took the same intelligence test on 6 occasions at weekly intervals. There was a significant increase in mean IQ between the first and second tests only. The range of IQ in individual cases over the 6 tests averaged about 12 points, and the maximum for any child was 25. There was no relationship between level of ability and practice effect.—*R. C. Strassburger* (St. Joseph's College for Women).

See also abstract 2344.]

CHILDHOOD AND ADOLESCENCE

2617. Arruda, J. **Contribuição para o estudo da fantasia excessiva na criança.** (Contribution to the study of excessive fantasy in children.) *Bol. Serv. soc. Menores, S. Paulo*, 1943, 3, 5-25.—Excessive fantasy is presented as a factor tending to increase maladjustment on a basis of original insecurity. Its correction demands revision of at least part of the unacceptable reality of the child's life. Nine cases of school delinquency are presented and discussed, mainly preadolescent children. Home insecurity was present in all instances, and the intelligence level was low.—*H. D. Spoerl* (American International College).

2618. Banay, R. S. **A psychiatrist looks at the zoot suit.** *Probation*, 1944, 22, 80-85.—Although many zoot suiters are imitators, in most cases the phenomenon is the result of deeper psychological elements: chaotic sexuality, immaturity, aggression, and the impact of the war on persons too young to become identified with it. "In general the zoot suiter is a youth of confused sexuality, poorly integrated, with a feeling of rejection by the older group."—*G. S. Speer* (Central YMCA College).

2619. Beckmann, J. W. **The "opportunity" class; a study of children with problems.** *Amer. J. Orthopsychiat.*, 1944, 14, 113-128.—Three opportunity classes, organized to help children with their problems, are the subject of this study. The youngest group (9½ to 12 years) were found to be suffering from primary behavior disorders. In the middle age group (10 to 14), neuroses were frequently seen. In the oldest group (12 to 15), delinquency and neurotic delinquency were the rule. Investigation of the child's activities outside the home gave clues to interests which could be used as remedial aids. A

definite need was indicated for enriching life experiences in order to modify the neurotic and delinquent patterns present.—*R. E. Perl* (New York City).

2620. Bell, J. O. **Psychological aspects of dental treatment of children.** Madison, Wis.: *Journal of Experimental Education*, 1943. Pp. 86.—Observational records were made of 93 children of ages 3 to 8, during periods of dental treatment in clinics. The dentist's behavior was recorded concurrently. Further data were gathered through interviews with the children and with their parents. Apart from the acts which comprised the dental treatment itself, behavior items were severally classified and then grouped broadly as characterized by rapport and non-rapport. Wide differences were noted among both dentists and children. Long periods of treatment are unfavorable, especially for the younger children. Although 48% of the children expressed rebellion, rebellion acts comprised only 4% of their total behavior; 53% of the children expressed uneasiness and dread. There is need for an educational program for parents regarding children's dental needs and behavior in such situations. There is also need for training of dentists regarding methods of guidance of child patients.—*E. B. Mallory* (Wellesley).

2621. Bernhard, D. L. [Chm.] **The effects of the war on children, as reported by citizens of New York State at public hearings held under the auspices of the State Board of Social Welfare.** Albany: New York State Board of Social Welfare, 1943. Pp. 189. \$0.35.—This report, compiled by the Special Committee on Juvenile Delinquency, presents the evidence given by a large number of persons, representing various institutions, regarding the effects of the current war situation on children. A preliminary chapter offers an introduction, a summary, and recommendations. The report itself falls into four sections: the impacts of war, the home (parents, children, working mothers), the community (the school, the church, recreation, family and children's services, the children's court, community protection for children, indices of neglect and delinquency), and planning. Recommendations especially stressed are: better community planning and integration of activity, better school facilities and more extensive use of the schools for group care of children, enlarged recreational and preventive facilities both public and private, and substitution of more part-time work for mothers instead of full-time shifts. Emphasis was placed also upon the basic need for strengthening the family unit. An appendix provides tables of statistics regarding official neglect and delinquency. Participants of the 13 hearings are listed.—*E. B. Mallory* (Wellesley).

2622. Bonte, E. P., & Musgrave, M. **Influences of war as evidenced in children's play.** *Child Develpm.*, 1943, 14, 179-200.—The data for this study of preschool children in Hawaii were gathered from three sources: observation of their play activity, analysis of their paintings, and responses to questionnaires filled out by their teachers. Influences of war were evident in their drawings, in the making of arms, planes, ships, etc., and in active dramatic war play. Although the war theme was prominent in these activities, it was not the exclusive interest, and there appeared to be joy in the activity for its own

sake. The authors conclude that positive personality characteristics are fostered just as much by war play as by any other normal play situation.—*L. Long* (College of the City of New York).

2623. Bowley, A. H. *Guiding the normal child; a guide for parents, teachers, students, and others.* New York: Philosophical Library, 1943. Pp. xv + 174. \$3.00.—Based on the author's experiences in general and in nursery-school training and as the director of the Dundee Child Guidance Clinic, the book is intended as a guide primarily for parents and teachers. It describes the characteristics of the normal development from infancy to adolescence and discusses the most common difficulties at each period, with suggestions for dealing with them. A chapter on children and the war deals with this phase of the British child's life.—*A. A. Rose* (Smith).

2624. Brick, M. *Mental hygiene value of children's art work.* *Amer. J. Orthopsychiat.*, 1944, 14, 136-147.—This is a report of observations made by an art teacher over a two-year period in private progressive nursery schools, schools, and camps on about 200 children ranging in age from 3 to 15 years. The observer kept notes on changes of mood, use of voice, choice of words, and the children's attitudes toward their own work, the group, and the teacher. These observations were checked in conferences with teachers, counselors, and often with parents. Examples are given to illustrate the author's conclusion that children's paintings are valuable material for personality study and can have preventive, diagnostic, and therapeutic value.—*R. E. Perl* (New York City).

2625. Bruch, H., & McCune, D. J. *Mental development of congenitally hypothyroid children.* *Amer. J. Dis. Child.*, 1944, 67, 205-224.—On the basis of data from longitudinal studies of 23 congenitally hypothyroid children, the authors show the need for caution in predicting the intellectual development of such children. A distinct relation between early adequate treatment and subsequent physical development was found, but a comparable relationship was not found with respect to mental attainment. Information regarding the rate of spontaneous functional progress before treatment serves as a more reliable basis for prediction than does a knowledge of the time at which the administration of thyroid was started or of the dosage administered. Case histories of 6 patients are presented. Scores on the Stanford-Binet are listed for all of the patients.—*L. Long* (College of the City of New York).

2626. Claremont, C. A. *Normalisation of the child-adult relationship.* *Brit. J. educ. Psychol.*, 1944, 14, 35-43.—In view of the accumulating evidence that adult abnormality may derive from a distorted child-adult relationship, it is important to determine what is the normal condition of this relationship. As properly conceived, it is not a merely logical content but rather an actual psychological bond linking two lives indissolubly into one. The fundamental basis of its normality lies in the mutuality of the love-tie. The significance of the mutual attachment between child and adult is in part biological, insuring the safety and defense of the child; further, it has the historical function of facilitating the transmission of culture from one generation to

the next. Thus nonmutuality, exploitation, and mistaken beliefs of the adult mind subvert the normal child-adult relationship. A model of this relationship in its most healthful form is seen in the master-apprentice association, and the transformations of schoolroom practice attributable to the influence of Seguin and Montessori have contributed to the realization of a more wholesome teacher-child relationship. The school situation founded on such a normal relationship is a source of scientific information unobtainable in the laboratory of experimental psychology or in the clinic.—*R. C. Strassburger* (St. Joseph's College for Women).

2627. Clothier, F. *The rôle of the study home in child guidance.* *Ment. Hyg., N. Y.*, 1944, 28, 64-76.—The historical account of the study home of the New England Home for Little Wanderers, founded in 1865, shows how evolving philosophies of child care have affected the services of the institution. Particular emphasis is placed on the more recent development of how psychiatric and psychological service functions in the study of the individual child needing help.—*W. L. Wilkins* (U. S. Naval Reserve).

2628. Clothier, F. *The treatment of the rejected child.* *Nerv. Child.*, 1944, 3, 89-110.—There is no single therapeutic approach to the rejected child, but certain goals are common to the treatment of these cases: helping the child to give and accept love, finding someone or something he can trust, and freeing him from his unhappy past experiences. In most instances the only feasible treatment is social rather than psychiatric.—*G. S. Speer* (Central YMCA College).

2629. Creak, E. M., & Shorting, B. J. *Child psychiatry.* *J. ment. Sci.*, 1944, 90, 365-381.—A review is given of significant literature since 1938, chiefly normal development; psychosomatic problems, including enuresis and parent-child relationships; effects of war; and the study of children's personalities through projective methods. 90-item bibliography.—*W. L. Wilkins* (U. S. Naval Reserve).

2630. Cunha, A., & Silveira, I. M. da. *Determinação do tipo morfológico da criança brasileira.* (Determination of the morphological type of the Brazilian child.) *Bol. Serv. soc. Menores, S. Paulo*, 1943, 3, 26-32.—Measurements by the indices of Pende and Viola were made of over 3,000 individuals at age 18, in a preliminary endeavor to establish morphological norms. The brevilinear type was found to predominate. A considerable mixture of anthropological and other factors demonstrated the need for further studies. The factor of national background appears to be highly significant.—*H. D. Spoerl* (American International College).

2631. Durfee, M. B. *Note on self-identification with enemy nationals.* *Ment. Hyg., N. Y.*, 1944, 28, 23-27.—Case materials are reviewed to show that identification with enemy peoples, when actively made by a child, deserves attention. Meanings may include identification with a parent, rejection of a parent, and projection of blame.—*W. L. Wilkins* (U. S. Naval Reserve).

2632. Finesinger, J. E. *The needs of youth; the physiological and psychological factors in adolescent behavior.* *Psychiatry*, 1944, 7, 45-57.—A systematic discussion, based upon normal and pathological

findings, is presented of the physiological factors involved in the growth and development of adolescents. There follows a discussion of the psychological factors involved in adolescent responses and behavior and their correlation with physiological factors.—*M. H. Erickson* (Eloise Hospital).

2633. Friedman, K. C. Time concepts of elementary-school children. *Elem. Sch. J.*, 1944, 44, 337-342.—Questioning of kindergarten and primary school children revealed that, though a child's conception "a short time ago" is much clearer than "a long time ago," it is still vague, even to a 6th grader. Time concepts are more closely related to grade maturity than to intelligence quotient. Teachers are advised against using time concepts not clearly understood by children.—*L. Adams* (Barnard).

2634. Gallo, S. C. La actividad lúdica de la primera infancia. (Sportive activity in childhood.) *Rev. Educ., La Plata*, 1943, 84, No. 6, 24-45.—Development up to adolescence in terms of the pleasure-reality balance is outlined. Play and related activities are central to the various aspects of emotional and personality growth. The theory of Kunkel is emphasized.—*H. D. Spoerl* (American International College).

2635. Gardner, G. E. A factor in the sex education of children. *Ment. Hyg., N. Y.*, 1944, 28, 55-63.—There is an almost universal resistance on the part of children to acceptance of the truth regarding sex and sex differences and future adult roles. The first fear and resistance are due to the anatomical coincidence of the urinary and genital tracts and to the fact that first punishments are centered about control of excretory functions. Physiological pleasure in stimulation of genital areas, long before maturity, also complicates the situation, as prohibitions also apply to such stimulation. A third factor is the actually noted or fantasized alliance between injury-producing aggression and sex.—*W. L. Wilkins* (U. S. Naval Reserve).

2636. Goldfarb, W. Infant rearing as a factor in foster home replacement. *Amer. J. Orthopsychiat.*, 1944, 14, 162-167.—The author is interested in the question of whether children with an institution experience in infancy are as well prepared for adjustment in foster homes as children with continuous foster home experience. Forty children with continuous foster home experience were matched in terms of sex, age, age of admission to care, and years of dependency with 40 foster home children whose infancy experience for about the first 3 years was in an infant institution. A study of reasons for the replacements of each child was made as the basis for evaluating the relative response of both groups to foster home placement. Precipitated replacement of institution children was often caused by (1) an aggressive, hyperactive syndrome, (2) a peculiar or bizarre syndrome, and (3) an emotionally unresponsive syndrome. Replacement data indicate that the personalities of children whose early years have been spent in an institution are such as to predispose them to failure and to replacement in their foster homes.—*R. E. Perl* (New York City).

2637. Goldfarb, W. The effects of early institutional care on adolescent personality (graphic Rorschach data). *Child Develpm.*, 1943, 14, 213-223.

—The author compares the responses made in the graphic Rorschach examination by adolescents who, shortly after birth, were placed in foster homes with the responses made by adolescents whose rearing in the first 3 years had been in an institution and whose subsequent experience was in foster homes. The results from this examination agree with previously developed hypotheses regarding the effects of institutional rearing. The children in the latter group show a greater tendency to deviate from the normal pattern than do the children in the former group. This deviation is represented in an unusual adherence to the "concrete" attitude.—*L. Long* (College of the City of New York).

2638. Harms, E. Substitution therapy: dogmatic or differential? *Nerv. Child*, 1943, 3, 36-47.—This is a report of a symposium concerned with the most important points in therapeutic work with orphans. Total, half, and fictional orphans are treated separately, and the special problems of each of these groups are indicated. Treatment of abnormal traits is also discussed.—*G. S. Speer* (Central YMCA College).

2639. Harrison, D. G. Motion picture studies of children with multiple handicaps. *Amer. J. ment. Def.*, 1944, 48, 296-298.—Motion pictures are being used to make an objective and comprehensive study of mentally retarded children with orthopedic difficulties. The plan is for taking pictures of the children as early as possible in their school life, rephotographing them at regular intervals, and incorporating these studies in the regular school record, with some member of the staff trained to take the pictures so that they can be made whenever it seemed advisable. It is found to be a truly objective means of recording progress, lack of progress, or even regression. It is felt that, with simple equipment and by using film thrifitly, it is possible to make motion picture studies that repay the cost.—*S. Whiteside* (Cincinnati Public Schools).

2640. Hartman, D. M. The hurdle jump as a measure of the motor proficiency of young children. *Child Develpm.*, 1943, 14, 201-211.—The relationship between various motor tests (hurdle jump, jump-and-reach, standing broad jump, baseball throw, and the 35-yard dash) was investigated. Data were obtained from 56 children ranging in age from 49 to 78 months. Retest reliability coefficients above .80 were obtained for all but one of the activities (jump-and-reach test, r being .63). On the basis of an analysis of the intercorrelations and multiple correlations, the author concludes that no single test is an adequate measure of the motor activities studied in the experiment. Consequently, the hurdle jump test, which the author was particularly interested in evaluating, does not seem to be a superior index of motor ability.—*L. Long* (College of the City of New York).

2641. Jenkins, R. L., & Hewitt, L. Types of personality structure encountered in child guidance clinics. *Amer. J. Orthopsychiat.*, 1944, 14, 84-95.—A conceptualized scheme of personality structure is here presented, and the appropriate type of therapy for each type of personality is discussed. Type I represents the individual who has an excessive development of the shell of inhibition; the primitive im-

pulses are denied adequate expression, and a personality with severe internal conflict results. The treatment for this type of neurotic person must be directed to canalize this shell of inhibition, so that the primitive impulses may find some expression in a socially acceptable way. Type II represents the individual with an inadequate shell of inhibition. For this unsocialized, aggressive child, one must create a superego by authority, firmness, and planned limitations. Type III is the socialized delinquent, the child with a normal shell of inhibition toward members of an in-group but with none toward members of any out-group. The problem here is one of establishing rapport, because treatment then becomes a process of enlarging the child's concept of his in-group through the skillful development and utilization of his loyalty. A discussion of the development of the different personality types is included.—R. E. Perl (New York City).

2642. Lane, R. R. Suggestions for handling young stutterers. *Elem. Sch. J.*, 1944, 44, 416-419.—Advice is given to parents and teachers to reduce all physical handicaps of the young stutterer, to make him as like other children as possible, to build up his self-confidence in non-speech situations, and to protect him from all unnecessary emotional difficulties. It is emphasized that there is no single, sure method which can suddenly cure stuttering.—L. Adams (Barnard).

2643. Northway, M. L. Social relationships among preschool children: abstracts and interpretation of three studies. *Sociometry*, 1943, 6, 429-433.—Abstracts of three studies (by M. Gregory, J. Budden, and S. F. Smith, respectively) of children attending the Institute of Child Study, University of Toronto, are presented. These lead to the following conclusions: "preference for companions is present at the nursery school age level and . . . these preferences become considerably stabilized in the older children. The child who is more effortful and constructive is preferred by children who show slightly less degree of these characteristics than himself. During this age period there is a transition from egocentricity, from ordering others to meet his demands to socialization indicated first by interest in others' actions and comment about those of which the child does not approve, and later by the expression of his social integration in suggestions of cooperation. . . . Intensive longitudinal studies of groups at this level would seem desirable."—G. R. Thornton (Purdue).

2644. Northway, M. L. Outsiders; a study of the personality patterns of children least acceptable to their age mates. *Sociometry*, 1944, 7, 10-25.—A sociometric test was given to members of grades 5 and 6 in a public school. Each child expressed his preference for associates in school situations. A weighted social acceptability score was then computed for each child. Children whose scores were in the lowest quartile were observed clinically and found to fall into three main categories: (1) recessive children, with no determinable expressive interests, (2) socially uninterested children, who are usually quiet, shy, passive in school, and unliked by others, and (3) socially ineffective children, who are often

noisy, rebellious, boastful, but still unliked by others. Sample brief case histories are given. Etiology and methods of treatment are discussed.—S. B. Williams (U. S. Naval Reserve).

2645. Nunes, M. Breve estudo sobre amas mercenárias. (*Brief study of commercialized nurses.*) *Criança portug.*, 1943, 2, 105-126.—Child care by nonprofessional and essentially untrained persons in cases of broken homes, working mothers, illegitimacy, etc. has become a profitable business. Investigation shows its psychological and social effects to be extremely deleterious. The problems created range from malnutrition to encouragement of immoral practices. The general atmosphere is one of emotional rejection, and the practitioners are frequently as immature as their charges. The only appropriate solution seems to be the creation of sufficient child welfare centers and agencies.—H. D. Spoerl (American International College).

2646. Richter, H. G. Emotional disturbances following upper respiratory infection in children. *Amer. J. Psychiat.*, 1943, 100, 387-396.—The writer concludes from a study of 12 children, ranging in age from 5 to 14 years, "that these children had difficulty in expressing appropriately their inherent hostile and aggressive thoughts and feelings. With illness these aggressive tendencies became manifest and dominant, and the patients attempted to cope with them by anancastic behavior."—J. E. Zerga (Avion, Inc.).

2647. Seipt, I. S. [Dir.] Psychotherapy for the exceptional child. *Proc. Inst. Child Res. Clin. Woods Schs*, 1943, 10. Pp. 62.—G. E. Preston stresses the need for the treatment of "the interpersonal relationships between the patient and the significant people who are associated with him." Therapy for parents paralleling treatment of their children (A. J. Rockwell) is illustrated in a description of the clinic setup sponsored by the National Committee for Mental Hygiene. The method of the play interview (J. H. Conn) is described as an attempt which "permits the child to view himself objectively while speaking for each of a number of doll characters, and simultaneously to bring together, for the first time, previously unrelated experiences." School progress problems without mental deficiency are discussed by H. F. Latshaw. The Baltimore training program for defective girls is also given. Psychotherapy for the parents of retarded children is evaluated by L. Kanner and T. Tretze in the light of sample cases. Further aspects of the problem in terms of an anthropological approach are given by L. B. Hohman.—S. B. Sarason (Southbury Training School).

2648. Sen, M. Child welfare work; the importance to the doctor of firsthand knowledge of the child's environment. *Indian med. Gaz.*, 1943, 78, 449-451.

2649. Warner, E. A. The contribution of the case method to guidance in a summer camp. *Abstr. grad. Thes. Educ. Univ. Cincinnati*, 1944, 4, 49-64.—Abstract.

[See also abstract 2377.]

CHARACTER and PERSONALITY

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